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Denver, Colo.  
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# CATALOGUE

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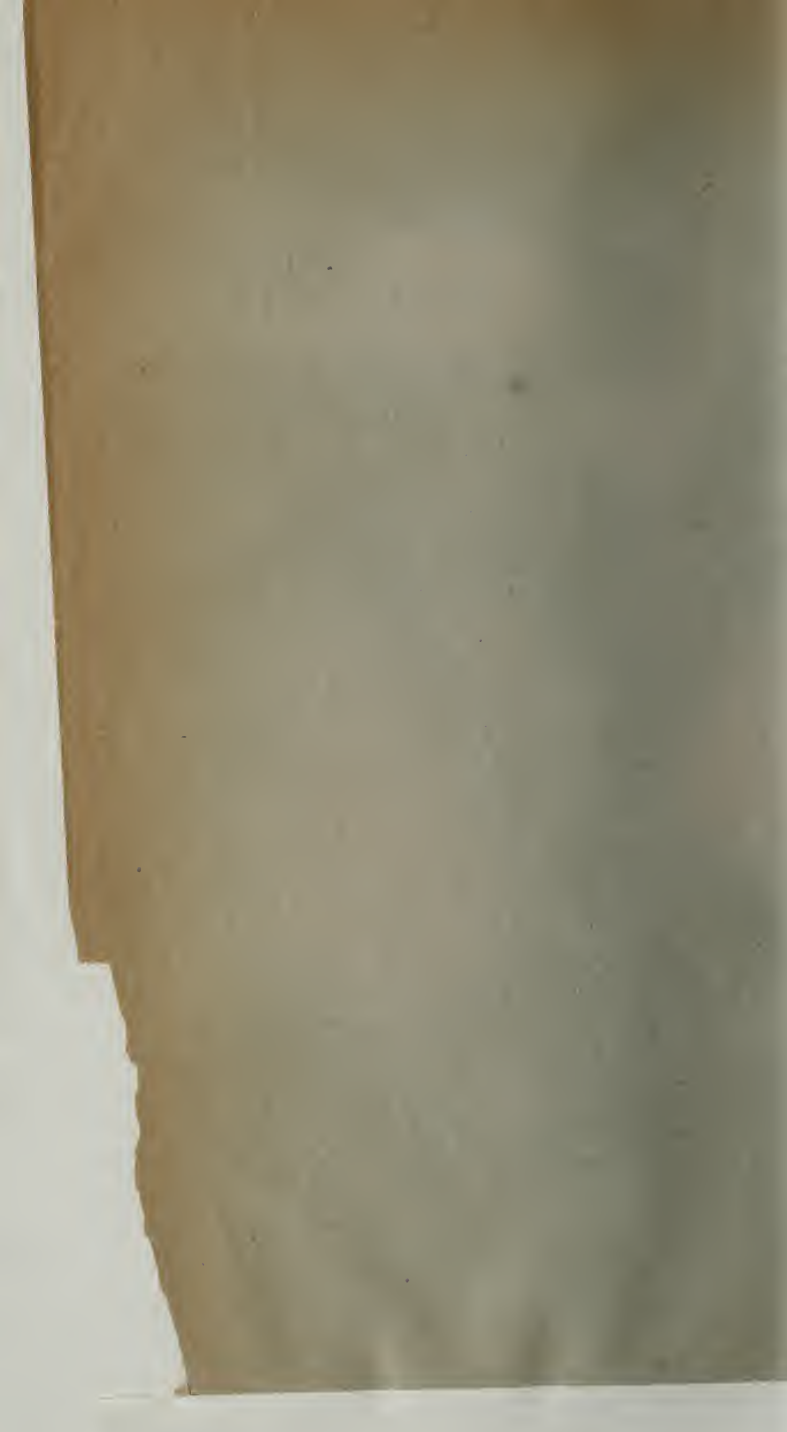
# UNIVERSITY OF DENVER



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# CATALOGUE

OF THE

## UNIVERSITY OF DENVER

AND

## COLORADO SEMINARY

### 1891-92



DENVER, COLORADO, 1891.

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THE SHATTUCK PRINTING COMPANY,  
DENVER, COLORADO.

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# UNIVERSITY CALENDAR.

1891-92.

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1891.

September 9. Fall Term Opens, 9 A. M.

September 17. Colleges of Medicine, Dentistry and  
Pharmacy Open.

November 26. Thanksgiving Recess.

December 22. Fall Term Closes, 12 M.

WINTER VACATION.

1892.

January 6. Winter Term Begins.

January 28. Day of Prayer for Colleges.

February 22. Washington's Birthday.

March 22. Winter Term ends 12 M.

SPRING VACATION.

March 30. Spring Term begins 9 A. M.

April 21. Commencement of Medical College.

Commencement of Dental College.

Commencement of College of Pharmacy.

June 3, Friday. Contest for the R. A. Long Prizes.

June 4, Saturday. Commencement of the College of Fine  
Arts.

June 5, Sunday. Baccalaureate Sermon, 11 A. M.

University Address, 8 P. M.

June 6, Monday. Commencement of College Preparatory,  
8 P. M.

June 7, Tuesday. Annual Meeting of Trustees, 2:40 P. M.

Chancellor's Reception. 8 P. M.

June 8, Wednesday. Commencement, 8 P. M.

SUMMER VACATION.

September 7, Wednesday. Fall Term begins.

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(1890-91.)

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Professor of Ophthalmology and Otology.

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Lecturer on the Plays of Shakespeare.

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Vice-President and Professor of Materia Medica, Therapeutics and the Diseases of Children.

D. T. WILSON, A. M.,

Associate Professor of History and Natural Sciences (1890-91).

A. K. WORTHINGTON, M. D.,

Professor of Anatomy.

L. R. WRAY,

Assistant in Stenographic Department.

**SPECIAL LECTURERS.**

HON. CHARLES S. THOMAS: "Tariff Reform."

HON. JOEL F. VAILE: "Protective Tariff."

HON. H. B. CHAMBERLIN: "Growth and Resources of Colorado."

MR. ELMER E. WHITTED: "Macbeth."

VICE-CHANCELLOR HYDE: "Shakespeare."

MRS. ELLEN MITCHELL:

1. "The Pre-Elizabethan Period."
2. "The General Characteristics of the Elizabethan Period."
3. "Shakespeare."
4. "Hamlet."
5. "Hamlet."
6. "King Lear."
7. "Sir Francis Bacon."
8. "John Milton."
9. "John Bunyan."
10. "General Summary: The Philosophy of Literature."

PROFESSOR CHARLES J. LITTLE, PH. D., LL. D.:

- "Hildebrand."
- "Bernard of Clairvaux."
- "Dante."
- "Savonarola."
- "Ignatius Loyola."
- "Pascal."

PRESIDENT JAMES W. BASHFORD, PH. D., D. D.:

- "Knowledge vs. Skepticism."
- "God and the World."
- "God and Man."
- "Christ and Salvation."
- "The Christian Church."
- "Applied Christianity."



**UNIVERSITY SERMONS AND LECTURES.**

BISHOP JOHN HEYL VINCENT, D.D., L.L.D.: "The Kingdom and Will of God."

BISHOP HENRY WHITE WARREN, D.D.: "Christ's Knowledge of Man."

CHANCELLOR McDOWELL: "Doubt and Duty;" "John Wyclif and the First English Bible;" John Hus, the Bohemian Martyr."

PRESIDENT J. W. BASHFORD, PH.D., D.D.: "Christ and Salvation."

## I.

# GOVERNMENT.

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THE UNIVERSITY IS UNDER THE AUSPICES OF THE COLORADO  
CONFERENCE OF THE METHODIST EPISCOPAL CHURCH.

ITS MANAGEMENT IS THOROUGHLY CHRISTIAN,  
BUT IN NOWISE SECTARIAN.

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Several denominations of Christians are represented in the Board of Trustees and in the faculties. These are all in sympathy with the aims of the institution. The purpose from the beginning has been to develop broad and accurate scholarship along with a lofty type of character. All the rules are framed with this in view. Students who aim at the greatest improvement find welcome and help. Only such students as manifest earnestness and moral purpose can remain connected with the Institution. Every influence is thrown around the student to develop culture and character.

## DEPARTMENTS.

The University of Denver now comprises the following departments:

- College of Liberal Arts.
- College of Fine Arts.
- College of Music.
- College of Medicine.
- College of Dentistry.
- College of Pharmacy.
- School of Law.
- Iliff School of Theology.
- School of Manual Training.
- Business College.

Detailed statements concerning each of these will be found in their appropriate places in this catalogue.

# COLLEGE OF LIBERAL ARTS.

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Professor of Natural Science.

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Professor of Latin Language and Literature, and Director of Modern  
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Professor of the English Bible, and Instructor in History and Political  
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Instructor in Modern Languages.

HERBERT E. RUSSELL, A. M.,  
Associate Professor of Mathematics and Natural Science.

BISHOP HENRY W. WARREN, D. D.,  
Lecturer on the English Bible.

MRS. ELLEN MITCHELL,  
Lecturer on the History of Philosophy.

ELMER E. WHITTED, A. M.,  
Lecturer on the Plays of Shakespeare.

\*Enters upon his duties in 1892.

**COURSES OF STUDY.**

The college offers three courses of study, the Classical, Literary and Scientific, leading to the degrees: Bachelor of Arts, Bachelor of Literature and Bachelor of Science.

Special students may select special studies under the direction of the faculty, and will receive credit and certificates for work actually done. All students are urged to pursue one of the regular courses of study.

**II.****INSTRUCTION.****ADMISSION.**

Candidates for admission to the Collegiate Preparatory Courses are required to furnish satisfactory evidence of fitness by passing an examination in the common English branches. Certificates of proficiency from previous teachers will aid the applicant in passing this examination and in securing a proper standing. Candidates for admission to the Freshman Class are urged to make the most thorough preparation in the studies leading to this rank. Candidates will be examined as follows:

**CLASSICAL.****ENGLISH.**

The candidate will be required to pass an examination in English Grammar, Hart's Course of Composition and Rhetoric, Stopford Brooke's Primer of English Literature; also to write a short English essay—correct in spelling, punctuation, grammar, division of paragraphs, and expression—upon one of the several subjects announced at the time of the examination. In 1891 the subjects for the essay will be drawn from Christ's Sermon on the Mount, Shakespeare's Julius Caesar, Coleridge's Ancient Mariner, Longfellow's Evangeline, Macaulay's Essay on Lord Clive, Webster's first Bunker Hill Oration, Scott's Old Mortality, George Eliot's Silas Marner, Hawthorne's House of Seven Gables, and the Book of Esther.

For 1892: Christ's Sermon on the Mount, Shakespeare's Julius Caesar, Scott's Marmion, Longfellow's

Courtship of Miles Standish, Addison's Sir Roger de Coverly Papers, Macaulay's second Essay on the Earl of Chatham, Webster's first Bunker Hill Oration, Scott's Talisman, George Eliot's Scenes from Clerical Life, Hawthorne's House of Seven Gables, and the Gospel of Luke.

For 1893: Christ's Sermon on the Mount, Shakespeare's Julius Cæsar, Scott's Marmion, Longfellow's Courtship of Miles Standish, Addison's Sir Roger de Coverly Papers, Macaulay's second Essay on the Earl of Chatham, Emerson's American Scholar, Irving's Sketch Book, Scott's Ivanhoe, and the Book of Job.

#### GREEK.

(1) Greek Grammar; twenty exercises in Jones' Greek Prose Composition; four books of Xenophon's *Anabasis*, or one hundred pages of Goodwin's Greek Reader; and three books of Homer's *Iliad*.

(2) Translation at sight of average passages from various Greek authors, with questions suggested by the prescribed passages.

#### MATHEMATICS.

Arithmetic, with the metric system; Algebra, through quadratic equations, including radical quantities, together with proportion, logarithms, and the binomial theorem for positive integral exponents; Plane Geometry and Trigonometry.

#### LATIN.

(1) Cæsar's *Gallic War*, Books I.–IV., or an equivalent amount of Cæsar's *Civil War*, Cornelius Nepos or Sallust; Cicero's *Orations against Catiline* and *for Archias*, with questions on the subject-matter and on grammar, including the rules for pronunciation; Virgil's *Æneid*, Books I.–VI., with questions on the subject-matter and on prosody.

#### NATURAL SCIENCE.

Natural Philosophy, the equivalent of Gage's Physics; Gray's Botany.

#### HISTORY.

Myers' General History or Swinton' Outlines or Thalheimer's Histories.

## GERMAN.

Otis' Elementary Grammar, Boisen's Preparatory Prose, Schiller's Wilhelm Tell.

## LITERARY AND SCIENTIFIC.

Students in the Literary and Scientific courses will be examined in the same studies as those in the Classical Course, with the omission of Greek and with the addition of one term each in Dana's Elementary Geology, Fiske's Civil Government, Montgomery's or Anderson's English History and Whipple's or Underwood's American Literature.

Examinations will be held twice each year.

(1) In June at commencement time.

(2) In September at the opening.

Candidates for admission should bring certificates of good moral character, and if from another institution a certificate of honorable dismissal. Certificates from high schools and other secondary schools will greatly aid the student in securing admission. Whenever it is possible to accept a certificate instead of an examination it will cheerfully be done.

## ADMISSION TO ADVANCED STANDING.

Candidates for advanced standing who do not come from some other university or college will be examined in the studies prescribed for admission, and also in such undergraduate studies as they may ask to be credited with in advance.

Students who have completed at least one year's college work in an approved college, and who bring certificates, designating studies and grades and testifying to good character, will be admitted without examination, except such as may be necessary to determine their rank. Students coming from colleges whose requirements for admission are equivalent to those of the University will thus be able to go on with their work without loss of standing.

## COURSES OF STUDY.

## CLASSICAL, LITERARY AND SCIENTIFIC.

Each of the College Fitting Courses is three years in length. All classes recite five hours a week, except as indicated below by the figures in parentheses.

## FIRST YEAR.

## 1.

Algebra,

Wells' Academic.

Latin,

Bellum Helvetium.

General History,

Myers.

## 2.

Algebra,

Wells' Academic.

Latin,

Bellum Helvetium.

General History,

Myers.

Practical Ethics,

Lectures (1)

## 3.

Algebra,

Wells' Academic.

Latin,

Bellum Helvetium.

Botany,

Gray and Coulter.

English Bible (1).



## SECOND YEAR.

CLASSICAL.	LITERARY AND SCIENTIFIC.
1.	1.
Plane Geometry, I, II, Caesar, I, II, III. Greek, { Goodwin's Grammar. { White's Lessons English Literature (2), Brooke.	Plane Geometry, I, II, Caesar, I, II, III. Rhetoric, English Literature (2), Hart. Brooke.
2.	2.
Plane Geometry, III, IV, V, Caesar IV, and Cicero begun Greek, { Goodwin's Grammar, { White's Lessons. English Literature (3). Practical Ethics, Lectures (1). Brooke.	Plane Geometry, III, IV, V, Caesar, IV and Cicero begun. Elementary Geology, English Literature (3), Dana. Practical Ethics, Lectures (1). Brooke.
3.	3.
Plane Trigonometry, Cicero's Orations continued. Greek Lessons & Anabasis begun English Literature (1), English Bible (1), Brooke.	Plane Trigonometry, Cicero's Orations continued. Civil Government, English Literature (1), Fiske. English Bible (1). Brooke.

## THIRD YEAR.

CLASSICAL.	LITERARY AND SCIENTIFIC.
1.	1.
German Grammar, Cicero's Orations continued and Vergil I. Anabasis. Physics (3), Otis. Gage.	German Grammar, Cicero's Orations con'd & Vergil I. English History, Physics (3) Montgomery. Gage.
2.	2.
German Grammar and Boisen's Preparatory Prose. Vergil II-V. Iliad and Greek History. Physics (3), Practical Ethics, Lectures (1). Gage.	German Grammar and Boisen's Preparatory Prose. Vergil II-V. Mathematical Review. Physics (3), Practical Ethics, Lectures (1). Gage.
3.	3.
German Grammar and Wilhelm Tell. Vergil VI and Eclogues. Iliad and Greek History. Physics (3). English Bible (1). Gage.	German Grammar and Wilhelm Tell. Vergil VI and Eclogues. American Literature. Physics (3), Whipple, Richardson. English Bible (1). Gage.



## COLLEGIATE COURSES.

## FRESHMAN.

CLASSICAL.	LITERARY.	SCIENTIFIC.
I. Surveying, Van Amringe. Solid Geometry, Wentworth. Chemistry, Von Richter. French Grammar. German (3).	I. Surveying, Van Amringe. Solid Geometry, Wentworth. Chemistry, Von Richter. French Grammar. German (3).	I. Surveying, Van Amringe. Solid Geometry, Wentworth. Chemistry, Von Richter. French Grammar. German (3).
2. Livy. Higher Algebra, Wells. French (4). German (2). English (1), Abbott—How to Write Clearly.	2. Livy. Higher Algebra, Wells. French (4). German (2). English (1), Abbott—How to Write Clearly.	2. Higher Algebra, Wells. Chemistry, Organic. French (4). German (2). English (1), Abbott—How to Write Clearly.
3. Higher Equations, Howe. Plato's Apology. French (4). German (3). English Bible (1).	3. Higher Equations, Howe. Zoology. French (4). German (3). English Bible (1).	3. Higher Equations, Howe. Zoology. French (4). German (3). English Bible (1).

## SOPHOMORE.

I. Analytic Geometry, Wentworth. Physics, Ganot. Horace, Odes. English Bible (1). French (2).	I. Advanced German. Physics, Ganot. Horace, Odes. English Bible (1). French (2).	I. Analytic Geometry, Wentworth. Physics, Ganot. Chemical Laboratory. English Bible (1). French (2).
2. Elementary Mechanics, Wood. Physics, Ganot. Lysias, Oration. French (3).	2. Advanced German. Physics, Ganot. English. French (3).	2. Elementary Mechanics, Wood. Physics, Ganot. Chemical Laboratory. French (3).
3. Elementary Mechanics, Wood. Horace. Satires. Thucydides. German or French (2). English Bible (1).	3. Advanced French. Horace. Satires. History of Civilization, Guizot. German or French (2). English Bible (1).	3. Elementary Mechanics, Wood. History of Civilization, Guizot. Chemical Laboratory. German or French (2). English Bible (1).

## JUNIOR.

CLASSICAL.	LITERARY.	SCIENTIFIC.
I. Political Economy. Physical Laboratory. Demosthenes, De- Corona. Descriptive Astron- omy (3).	1. Political Economy. Physical Laboratory. Early English. Descriptive Astron- omy (3.)	I. Political Economy. Physical Laboratory. Calculus, Taylor. Descriptive Astron- omy (3).
2. History of Philosophy (2). Art Criticism (4), Samson. Tacitus. De Senectute begun. English Literature. Saintsbury.	2. History of Philosophy (2). Art Criticism (4), Samson. Tacitus. De Senectute begun. English Literature, Saintsbury.	2. History of Philosophy (2). Art Criticism (4), Samson. Calculus. Taylor. English Literature, Saintsbury.
3. Ethics (4), Robinson. Rhetoric, Genung. De Senectute and Ter- ence. Sociology (2), Bascom. English Bible (1).	3. Ethics (4), Robinson. Rhetoric, Genung. De Senectute and Ter- ence. Sociology (2), Bascom. English Bible (1).	3. Ethics (4), Robinson. Rhetoric, Genung. Spherical Trigonome- try. Sociology (2), Bascom. English Bible (1).

## SENIOR.

I.	I.	I.
Geology, Dana Psychology (2), Dewey. Greek Drama. English Literature (3). Christian Evidences (3), Fisher.	Geology, Dana. Psychology (2), Dewey. Universal History. English Literature (3). Christian Evidences (3), Fisher.	Geology, Dana. Psychology (2), Dewey. Mathematical Astron- omy, Doolittle. English Literature (3) Christian Evidences (3), Fisher.
2. Psychology (3), Dewey. Geology (4), Dana. Christian Evidences (3), Fisher. Row. Logic, Jevons. English Literature (3)	2. Psychology (3), Dewey. Geology (4), Dana. Christian Evidences (3), Fisher. Row. Logic, Jevons. English Literature (3).	2. Psychology (3), Dewey. Geology (4), Dana. Christian Evidences (3), Fisher. Row. Logic, Jevons. English Literature (3).
3. Mineralogy, Dana. International Law, Davis. History (4). English Literature (3). English Bible (1).	3. Mineralogy, Dana. International Law, Davis. History (4). English Literature. (3). English Bible (1).	3. Mineralogy. Dana. International Law, Davis. History (4). English Literature (3) English Bible (1).

## INSTRUCTION IN DETAIL.

### PSYCHOLOGY.

This is studied during two terms in the Senior year. The instruction begins with a study of the nature of the mind itself, its faculties, its unity, development, and relation to morals, and concludes with physiological psychology, the nervous mechanism, the correlations of the nervous mechanism and the mind.

The text-books are Ladd's "Physiological Psychology," and Dewey's "Psychology." By the liberal provisions of the deed endowing the Chair of Mental and Moral Philosophy and Christian Evidence, a large and well selected library of works on this subject is constantly accessible to the students.

### EVIDENCES OF CHRISTIANITY, AND ETHICS.

#### 1. Evidences of Christianity—two terms.

The aim of this course is to study the internal and external evidences, to examine the nature and grounds of Christian and theistic belief, and to present Christianity as the absolute religion. Fisher's "Grounds of Theistic and Christian Belief," and Row's "Manual of Christian Evidences," are used as text-books in connection with a large and well chosen library of reference books. Lectures by the Chancellor supplement the work of the class room.

During the year President James W. Bashford, D.D., of Ohio Wesleyan University, gave a course of lectures on this subject, of which a list is given elsewhere.

#### 2. Ethics.

In the Preparatory Course a course of lectures on Practical Ethics is given to all the students by the Chancellor.

The Junior classes devote one term to more advanced work. Robinson's "Principles and Practice of Morality," and Porter's "Elements of Moral Science," are the text-books. To this are added discussions, lectures and original investigations. A very fine ethical library has been purchased and put in place for use in connection with this study.

## THE ENGLISH BIBLE.

During the year Bishop Henry White Warren, D.D., has begun the endowment of this Chair by a generous gift of \$6,300. His proposition contained the following statement:

*"To the Trustees of the Colorado Seminary and the University of Denver.*

*Ladies and Gentlemen:*—We are signally honored by being made the custodians and managers of the funds and opportunities of an important institution for giving the coming generations the greatest intellectual and moral development.

I have felt that our honors and opportunities could not be multiplied without our responsibilities being increased. Anxious to meet my own, I have asked how I could best extend the usefulness of the University of Denver.

Fortunately there is one book that is the oldest history, the best known classic, the deepest philosophy, an ideal excellence of poetry and rhetoric, the embodiment of our American constitutional law, the foundation of good morals, whose words are still spirit and still alive with the authority of Him who spake as never man spake, a blessedness to nations and power of eternal life to individuals.

I count myself most happy to be able to begin the endowment of a professorship for teaching all the students of the University, in all the coming years, the varied excellence and perpetual power of the English Bible, for the purpose, as Mr. Gladstone says, of bringing the human mind into contact with divine revelation as the only hope of the world."

Pursuant to this plan the course is arranged to provide not less than five terms of instruction at present in this supreme classic. The poetry, history, biography, philosophy and prophecy in the Bible will be studied as literature. This is not a chair in theology, but is what its name implies. A series of conferences will be held during the year, at which distinguished Bible scholars, both clerical and lay, will present some particular phases of Bible study. Bishop Warren has accepted an ap-

pointment as lecturer on the English Bible and will give an extended course of lectures during the year. The Rev. William Rice Newhall, A.M., of Wesleyan University, devotes the year to special preparation for this work, part of it being spent abroad, and enters upon his duties in 1892.

The Hon. E. H. Webb offers a prize in connection with this study, the terms of which are described elsewhere.

### MATHEMATICS AND ASTRONOMY.

The instruction in pure Mathematics has text-book work as its foundation, and is supplemented by much oral teaching. The aim of the instructor is first to lead the students to have clear ideas of the reasons underlying the operations, and then to give skill by practice. To this end those text-books are employed, which are amply equipped with examples, written solutions of which must be handed in by the students.

In applied Mathematics the instruction is made as practical as possible with the appliances at hand. Two engineer's transits, with leveling rod, steel tapes, etc., are available for the work in Surveying. During the past year the class made measurements for finding the latitude and longitude of the Chamberlin Observatory, by connecting it with points previously determined by the United States Coast Survey.

The course in Mechanics, while entirely theoretical, deals to a large extent with problems of practical import. Mathematical Astronomy is taught by means of the astronomical instruments at the observatory, the theories and elementary uses of which the students are expected to learn. When the observatory is fully equipped, a special course in Theoretical and Practical Astronomy, for advanced students, will be offered. Classes in Descriptive Astronomy use a text-book, and have the benefit of informal lectures, together with visits to the observatory.

A feature of the work in the department of Mathematics and Astronomy is a series of short honor courses in connection with the regular class-work. These courses are made up of problems pertaining to the subject in hand, and students receive special credit for their solu-



tion. The scope of the teaching in each subject is outlined below, but the instructor does not bind himself to use the text-books named.

### PREPARATORY COURSES.

#### FIRST YEAR.

*First Term*—Wells' Academic Algebra, pp. 1-105, through Fractions.

*Second Term*—pp. 106-211; Simple Equations, Involution, Evolution, Exponents, and Radicals.

*Third Term*—Quadratics, Proportion, Logarithms.

#### SECOND YEAR.

*First Term*—Wentworth's Revised Geometry, bks. I-II.

*Second Term*—Geometry, bks. III-V.

*Third Term*—Wells' Essentials of Plane Trigonometry.

#### THIRD YEAR.

*Second Term*—Mathematical Review; Simple Equations, Involution, Evolution, Radicals, and Quadratics. Important principles of Plane Geometry and Plane Trigonometry.

### COLLEGIATE COURSES.

#### FRESHMAN YEAR.

*First Term*—Van Amringe's Surveying: Distances, Areas, Magnetic Declination, Government Surveying, Triangulation, Leveling, Railway Curves and Mining Surveying; Field Work: Eight weeks. Wentworth's Revised Geometry, books VI-VIII: Eight weeks.

*Second Term*—Wells' Higher Algebra: Quadratics, Inequalities, Limits, Proportion, Variation, Progressions, Undetermined Coefficients, Binomial Theorem, Logarithms, Permutations and Combinations.

*Third Term*—Higher Equations: Loci, General Theory of Higher Equations, Horner's Method, Recurring Equations, Exponential Equations, Cardan's Method and Trigonometric Solution of Cubics.

#### SOPHOMORE YEAR.

*First Term*—Wentworth's Analytic Geometry: The

Right Line, Circle, Transformation of Co-ordinates, Parabola, Ellipse, Hyperbola and General Equation of the Second Degree. The Point, Plane and Line in Space.

*Second Term*—Wood's Elementary Mechanics: Kinematics, Kinetics, Friction, Energy, Momentum, Concurrent Forces, Moments, Centre of Gravity and Constrained Equilibrium.

*Third Term*—Mechanics, continued: Strength of Beams, Projectiles, Central Forces, Specific Gravity, Hydrostatics, Hydrodynamics and Pneumatics.

#### JUNIOR YEAR.

*First Term*—Taylor's Calculus: Elementary Processes of Differentiation and Integration with Applications to Geometry and Mechanics, Indeterminate Forms, Development of Functions, Maxima and Minima.

*Second Term*—Partial and Total Derivatives, Tangents, Normals, Asymptotes, Curvature, Singular Points, Curve Tracing, Evolutes, Envelopes, Rational Fractions, Integration by Parts and Series, Rectification, Quadrature and Cubature.

*Third Term*—Wells' Essentials of Spherical Trigonometry.

#### SENIOR YEAR.

*First Term*—Young's Astronomy, three time a week. Doolittle's Practical Astronomy: Systems of Co-ordinates and their Transformation, Parallax, Refraction, Determination of Time and Latitude by the Sextant and Transit, Elementary Theory of the Equatorial and Filar Micrometer.

#### THE CHAMBERLIN ASTRONOMICAL OBSERVATORY.

The Observatory is the gift of Hon. H. B. Chamberlin, of Denver. It is situated on a plat of fourteen acres, four blocks from the college campus, at University Park. There are two stone buildings. The smaller one of these, called the Students' Observatory, shelters a six-inch equatorial and a two-inch transit instrument. G. N. Saegmuller, of Washington, D. C., is the maker of these instruments; Brashear furnished the six-inch objective. The equatorial is provided with divided circles, driving clock, filar position micrometer and helioscope.

The main building is 65 feet long and 50 feet deep. It is crowned by an iron dome, the apex of which is more than 50 feet from the ground. It is built of red sandstone from the Archalow Quarries. The principal rooms in the building are the dome-room, transit-room, library, computing-room, director's office, clock-room, janitor's quarters, sleeping-room, photographic room and store-room.

A twenty-inch equatorial refractor, nearly twenty-six feet in focal length, is the principal instrument. Its objective was figured by Clark and is reversible for photography. Mr. Saegmuller constructed the mounting, which embodies some novel features. The subsidiary instruments are a four-inch meridian circle, a standard mean time clock, a standard sidereal clock, a chronometer, a chronograph, a sextant, a solar transit, etc.

The instrumental equipment of the Observatory is the finest between the Alleghanies and the Sierras. The cost of this large-hearted gift to the University is in the neighborhood of \$50,000.

#### HISTORY.

The study of History begins the first year of the College Preparatory course, with Myer's General History as a text book. Two full terms, five hours a week, with much collateral reading, are given to the study at that time.

English History occupies a term in the third year preparatory.

Guizot's History of Civilization is studied by literary and scientific students in third term Sophomore year.

In the Senior year a dozen lectures are given on historical study and the philosophy of history, and a special period is studied, on the seminary plan, by the entire Senior class. During the current year the "French Revolution" was the special topic. The lectures by Dr. Little, elsewhere mentioned, were designed to supplement the work in this department.

#### POLITICAL ECONOMY.

This study continues during the fall term of the Junior year. The general principles and history of



economic development are taught by means of text books. Special studies in international commerce, finance, the labor problem, co-operation, profit sharing, city government, monopolies and current problems, supplement the general work. During the past year special advocates of tariff reform and protective tariff presented their views to the class, and the subject was then debated in public by the class. Prizes were offered for the best essay in favor and the best essay in opposition to monopolies.

A large and well selected reference library of works on Political Economy is always accessible to the students.

### SOCIOLOGY.

Text Book : Sociology, by President Bascom. The study of the text is supplemented by study of recent sociological discussions, as found in other books, in magazines, and in various pamphlets upon special phases of the science.

### ENGLISH LITERATURE.

Recognizing the importance of this department a course has been planned with a view to introducing the student to the chief authors of our literature. In the second year of the collegiate preparatory course, all students are required to pursue this study for three terms. "The Primer of English Literature," by the Rev. Stopford Brooke, is the text book, which is supplemented by careful studies in contemporary history, and by almost daily readings illustrative of the period or author under consideration. One full term is devoted to American Literature, with Whipple's American Literature and Richardson's Primer of American Literature as guides.

The students are directed to read sufficient selections to learn the style of the authors they are studying.

In the second term of the Junior Year the advanced work in English Literature begins, with studies in the Pre-Elizabethan and Elizabethan periods — Chaucer, Spencer, Bacon, Milton, and the English dramatists of the period are made the subject of critical study. A good part of the term is devoted to Shakespeare, with a large library of Shakespearian literature to aid. The plays

selected for study during the present year were "Hamlet," "Macbeth," and "King Lear." Taine, Ten Brink, Saintsbury, Lowell, Whipple, Dowden and others are text-books.

The lectures by Mrs. Mitchell, Mr. Whitted and Dr. Hyde, referred to elsewhere, greatly aided the class during the past year. Similar courses of lectures are planned for the future. The literature of the King James translation of the Bible was studied with Professor Francis Bowen's "A Layman's Study of the English Bible," as an aid to the study of the text itself.

In the first term of the Senior Year the period broadly termed "Eighteenth Century Literature" is covered. The course embraces selections from the following authors: Swift, Addison, Pope, Johnson, Burke, Goldsmith, Fielding, Sterne, Gray and Cowper. Thackeray's "English Humorists," Leslie Stephen's "History of English Thought," "History of Eighteenth Century Literature," by T. S. Perry, are used as reference books. "Eighteenth Century Literature," by E. S. Gosse, is the text-book.

In the second term the principal English authors of the Nineteenth century are studied, partly by text-books, lectures and critical readings, and partly by outside reading under direction of the teacher. Oliphant's "Literary History of the Nineteenth Century," Stedman's "Victorian Poets," and Hodgkins "Guide to the Study of Nineteenth Century Authors," are used for reference.

In the third term the British Essayists and Historians are studied. This work embraces an examination of the opinions and style of the chief authors in these departments, with frequent preparation of papers on assigned topics.

Essay work forms a large part of the work in all these classes. The student is encouraged to study the great masterpieces for himself. The aim constantly is to study literature rather than to study about it. During the year Ex-Governor Evans has completed the endowment of the Chair of Belles-Lettres, as stated elsewhere. The class work will be supplemented by lectureships and by the use of a very excellent library.

### RHETORIC.

Hart's "Rhetoric" is required for admission to the Freshman class. During the course two terms are given to Rhetoric, one to Abbott's "How to Write Clearly," supplemented by Spencer's "Philosophy of Style," and the other to "Genung's Rhetoric." Essay work is required all through the course. During the current year each student was required to write essays for public rhetorical, besides such essays as were required in various classes.

### GREEK LANGUAGE AND LITERATURE.

The study of Greek begins in the second year Preparatory, with the use of Goodwin's Grammar and White's Lessons, ending with the Anabasis. In the third year preparatory the Anabasis is continued, and the Iliad is read in connection with Greek History. In the college course the following terms are devoted to this most perfect of languages:

Freshman—1 term—Plato's Apology.

Sophomore—1 term—Lysias' Orations.

Sophomore—1 term—Thucydides.

Junior—1 term—Demosthenes.

Senior—1 term—Greek Drama.

The Greek Testament is read throughout the course, a part of each term being devoted to it. Dr. Hyde, Professor of Greek, spends the summer of 1891 in Greece studying modern Greece, its cities, customs, literature and life.

### LATIN LANGUAGE AND LITERATURE.

The aim of the instruction in the Latin language is to give the students an intelligent insight into the structure and genius of this mother of the Romanic family of Modern Languages. This implies study of the Latin Grammar, not for the purpose of burdening the mind with a mass of undigested rules and forms, but of bringing the student to a clear and thorough perception of the logical force, conciseness and vigor of the language. The way to an intelligent appreciation of this invaluable inheritance, lies through personal, intelligent contact

with the best original productions of the Roman mind of the classic period. This we aim to give in the course outlined.

#### PREPARATORY COURSES.

##### FIRST YEAR.

Elementary instruction in Latin, using Allen and Greenough's Grammar with "Bellum Helvetium," comprising the first 29 chapters of the first book of Cæsar's Gallic War. This is supplemented by blackboard work and practice in Prose Composition.

##### SECOND YEAR.

*First Term*—Cæsar, Gallic War, continued. Prose Composition.

*Second Term*—Cæsar, Gallic War, four books concluded. Cicero's orations against Catiline begun.

*Third Term*—Cicero's orations.

##### THIRD YEAR.

Devoted entirely to the first six books of Virgil's Aeneid, accompanied by the study of Roman Mythology.

#### COLLEGIATE COURSES.

##### FRESHMAN.

*Second Term*—Livy, parts of first and twentieth books.

##### SOPHOMORE.

*First Term*—Horace, Odes.

*Third Term*—Horace, Satires.

##### JUNIOR.

*Second Term*—Tacitus, Germania and Agricola; and Cicero, De Senectute begun.

*Third Term*—Cicero, De Senectute, and Terence.

#### MODERN LANGUAGES.

In the time allotted to the study of German and French, we intend the student to gain as much of an insight into these languages as possible. A grammar foundation is necessary to the correct use of language and,

therefore, a part of the first term's work is exclusively grammatical. Several representative classical works are read but modern prose is not neglected. Reading at sight and translating by ear, are required. Abstracts and paraphrases of works read and translations from English are used as drills in composition. As far as possible, the exercises of the classes are carried on in the language studied. The work is as follows:

### GERMAN.

#### THIRD YEAR PREPARATORY.

*Fall Term*—Otis' Elementary Grammar, Boisen's Preparatory Prose.

*Spring Term*—Boisen's Preparatory Prose.

*Winter Term*—Wilhelm Tell, Schiller.

#### FRESHMAN.

*Fall Term*—Lessing's "Minna von Barnhelm," Riehl's "Der Fluch der Schönheit," Recitations in German from Winkebach's "Grammatik" and "Lesebuch."

*Winter Term*—Goethe's Hermann and Dorothea, Lesebuch.

*Spring Term*—Heine's Hargreise, Lesebuch.

#### SOPHOMORE.

*Spring Term*—Koenig's Literaturgeschichte, and works of the authors studied.

### FRENCH.

#### FRESHMAN.

*Fall Term*—Edgren's French Grammar and Super's French Reader.

*Winter Term*—Grammar and Reader.

*Spring Term*—Voltaire's History of Charles XII.

#### SOPHOMORE.

*Fall Term*—Sand's La Mare au Diable," Daudet.

*Winter Term*—"Le Philosophe sur les Toils."

*Spring Term*—Auberts "Literature Classique" (Les Horace, Esther, Le Cid, Les Femmes Savantes, etc.) Written translations from English and weekly dictations and essays in French supplement this work.



## NATURAL SCIENCES.

In the College Preparatory, all students study Botany one term and Physics three terms; the Literary and scientific students having one term of Elementary Geology.

In the College Course two terms are devoted to Chemistry, two to advanced Physics, one to Zoology, one term to Physical Laboratory, one term to advanced Geology and one term to Mineralogy.

In the new University Hall the facilities for instruction in this department will be greatly increased. Liberal provisions are made and generous space allowed for work in this line.

## POST-GRADUATE COURSES.

The University confers no honorary degrees. It provides, however, that the degrees of Master of Arts and Doctor of Philosophy may be obtained *in cursu*. For the degree of Doctor of Philosophy, the history of philosophy is required as a basis. The examinations will be upon the History of Philosophy by Ueberweg or Erdmann, as the candidate may elect. At least four other subjects are required. The candidate may select from Ethics, Philosophy of History, History, Political Philosophy, Science, Literature, Biblical Theology, Metaphysics, Theism and Christian Evidences, International Law, Aesthetics, Pedagogics, Mathematics and Language. A list of books will be furnished to any one who desires to pursue this course.

For the degree of Master of Arts, Schwegler's History of Philosophy and satisfactory work in two other subjects will be accepted. A thesis is required from all candidates for either degree.

The matriculation fee for either degree is \$25, and must be paid in advance. The diploma fee, which covers the cost of examinations also, is, for the degree of Doctor of Philosophy, \$35; and for the degree of Master of Arts, \$15.

Graduates of our own or other institutions of corresponding collegiate rank are eligible to these degrees. Attendance upon the University is not required, except in case of the final examinations.

### LIBRARIES.

The University possesses the beginning of a most excellent working library. Several valuable donations were made some years ago, including the library of the Reverend J. F. McClelland, A.M., and the gifts to the Beardsley Alcove. During the past year the venerable Professor Philander Wiley, D.D., made a contribution of valuable books. By the generous aid of the following friends: Ex-Govs. Evans and Elbert, Ex-Senator Hill, Bishop and Mrs. Warren, Hon. H. B. Chamberlin, Dean Peck, W. S. Iliff, I. E. Blake, J. E. Downey, Mrs. Gov. Evans, Mrs. Mary Lowe Dickinson, W. P. Miller, and members of the Faculty, an addition of about a thousand new and carefully chosen books, selected by heads of departments, has been made during the year. These books are accessible daily to the students for reference and use. It is hoped to make an annual addition of such books in this way.

The Denver Public Library, situated in the High School building, and the Mercantile Library, in the Chamber of Commerce, are both accessible to the students of the University without cost. These include about 25,000 volumes. Several very large and carefully chosen private libraries are also open to students.

### RELIGIOUS USAGES.

Prayers are held in the Chapel every school-day morning, which all students are required to attend. Presence at service on Sunday morning in some church of the student's choosing is required, and attendance on Sunday School is warmly recommended. Prayer meeting is held on Tuesday afternoon, to which all are cordially invited. Prayer meeting is held in the Home for Young Ladies at least twice each week. During part of the year a noon-day prayer meeting was maintained by the students.

Two vigorous and consecrated organizations have been formed in the college during the past year known as the "Christian Worker's Leagues." These bands of young men and young women have rendered efficient religious service, not only inside the college, but also in various churches and missions in the city. By

public instruction and private personal work with individual students, the effort is made to lead members of the University into and then "in the paths of righteousness," and to a personal knowledge of the great Teacher as Saviour and Guide.

The Young Men's Christian Association was organized by General Secretary Mott in May and will be ready for aggressive work at the opening of the new year. A member will be sent to the Summer School for Christian Workers, at Geneva Lake, Wisconsin.

#### HONORS.

Honors awarded in the Academic Department are :

First honor in Classical Course.

First honor in Scientific Course.

First honor in Literary Course.

These honors are decided by the scholarship and department record extending over the four college years, scholarship counting three and department one.

The honors are decided by the Academic Faculty, and announced at the beginning of the senior vacation.

When there is but one graduate in a department, no award is made, unless in case of an exceptionally good record. The salutatorian and the valedictorian are determined by the Academic Faculty from the honor graduates.

The valedictorians have been :

1884—John Hipp.

1885—Wm. A. Moore.

1886—Elmer E. Kitchen.

1887—Elbert Richardson.

1888—Alfred T. Moore.

1889—Hubert Lincoln Shattuck.

1890—Orville Frank Shattuck.

1891—Everett Flower Benedict.

#### PRIZES.

John Hipp, Esq., the first graduate of the University, offers a prize of Fifty Dollars for the best entrance examination to the Freshman Class. The examination is had on the day next before the beginning of the Fall Term and is limited to the Classical course. This prize was won by Mr. Frederick Tevis Krueger in 1890.



R. A. Long, Esq., establishes a prize of Twenty-five Dollars for the best original English oration, and the same sum for the best original essay. J. J. Post, Georgetown, received the prize in 1891 for the Oration, subject: "Conquerers," and Mabel D. Walker, Denver, for the Essay, subject: "Education."

Mrs. Mary Lowe Dickinson offers a prize of twenty-five dollars for the greatest improvement in English Composition. This was won in 1891 by John Joseph Post.

Chancellor McDowell offers a prize of ten dollars for the best essay in opposition to Monopolies, and ten dollars for the best essay in favor of Monopolies. This offer is limited to members of the class in Political Economy.

The Alumni of the College of Liberal Arts offer a prize of thirty dollars to the student of the University of Denver who wins first honor in the local oratorical contest, and \$20.00 to the one who wins second honor. In 1891 Charles McCoard received first honor with an oration, "Parnell, His Character and Influence." Marion Law received second honor with an oration on "The Brazilian Revolution." Mr. Law won first honor at the State Contest held in Boulder, and represented Colorado in the Inter-State Contest at Des Moines, Iowa.

In order to stimulate Bible study, the Hon. E. H. Webb of Denver offers a prize of fifty dollars for the best essay upon either of the following topics: "The Bible Adapted to All Times and Lands;" "The Bible as the Preserver of All that is Valuable in Ancient History;" "The Ethics of the New Testament;" "St. Paul as a Writer and Thinker;" "The Four Gospels." The essay must contain not less than 2,000 nor more than 2,500 words, and must be ready for the judges April 1st of each year. This offer is confined to members of the college classes. A type-written copy of each essay is to be kept in the archives of the University. The winning essay is to be delivered in public in connection with some of the exercises of Commencement week.

We are able also to announce the "Henry White Warren Fellowship," established recently. The income

from this is one hundred dollars a year. It is offered to graduates of the College of Liberal Arts who pursue post-graduate studies, either in medicine, law, theology or philosophy. The exact terms will be announced later.

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## AID TO STUDENTS.

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Students are urged to help themselves as far as possible. Independence and self-reliance are constantly taught. But for students who need aid there are several sources. First are the prizes mentioned elsewhere. Second are certain scholarship coupons available for cases of merit and necessity. Third are the educational societies from which worthy students can obtain loans when approved by the proper officers. Fourth are certain funds given by individuals for this purpose. Persons desiring to do good by a wise investment of a small amount of money can find no better way than by the establishment of perpetual scholarships.

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## LECTURE COURSES.

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During the year two courses of lectures were given to the public under the auspices of the University, one by President Bashford, the other by Professor Little. The subjects are given elsewhere. Other courses are planned for next year, some being already secured. The topics will embrace English Literature, Modern Greece, Shakespeare's Plays, Philosophy, Ethics, English Bible, Astronomy, Science and History. A fund for the maintenance of a permanent lectureship is greatly needed. Anyone giving \$5,000 or \$10,000 could establish such a lectureship and name it.

## LOCATION.

The University of Denver is planted in a most favored section of the country. Denver possesses every advantage as a seat of higher learning. No city has done better for public instruction and no public schools are of higher grade. The University of Denver is most fortunate in its location. Its professional schools—those of Law, Medicine, Dentistry, Pharmacy, the Colleges of Music, Fine Arts, Business, and Manual Training, are in the heart of the city, within easy access of all the principal car lines.

The College of Liberal Arts and the Iliff School of Theology will hereafter be located in the choicest of Denver's suburbs—University Park—within forty minutes of the new postoffice building. Travelers have pronounced the site at University Park unequalled for a University. It is higher than the capitol in Denver, and commands a most perfect view of the city. The mountains are in full view for a distance of two hundred miles, with the valleys and foot-hills between. The air is always pure. No smoke befouls it. The society is of the best. Liquor selling and saloons are forever excluded. Here is already built the Chamberlin Observatory, described elsewhere, destined soon to be one of the famous observatories of the world. Here will be ready for the opening of the fall term the elegant new University Hall, a cut of which is given elsewhere. This building is one of the finest college buildings in the country, costing \$80,000. Near it will be the "Cottage for Young Ladies," also ready for the fall term. The trustees have adopted the cottage policy as the best. The young ladies will live in groups of fifteen, each group in a separate house, under the control of a matron and a teacher. Here, too, is soon to be built the Iliff School of Theology building at a cost of \$50,000—the gift of Mr. William S. Iliff, a graduate of the class of 1888, College of Liberal Arts.

Ample playgrounds, tennis-courts and recreation-rooms are here provided. No healthier locality or surroundings can be found than these. All experience shows

that a suburb is much better than the center of a city for college work. Here at University Park the faculty will live, and here will be built a distinctly University community.

The fare on the Circle Road—a branch of the Santa Fe system—is only two and a half cents each way for students, and five cents for others. The fare over the Tramway system is only five cents to any part of the city.

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## NEEDS.

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The University is set to do a vast work in this mighty West. Denver is, and is increasingly to be, a center of higher learning. In the chain of great universities stretching across the continent the University of Denver is to be a most important link, as strong and essential as any. A sufficient and thorough equipment of the University in all departments, on the scale demanded by its position, will require resources many times greater than those now in possession. No department is as yet properly endowed. The liberality of some of our noble givers is an inspiration and a pledge, but as has been well said: "While no apprehensions can be felt about the remoter future, and while individuals are now giving with a generosity worthy of all praise, it should be remembered that, with institutions, as with men, youth is a period of opportunities inestimably precious; that many of these, if not improved at the time, are forever lost. The opportunities opening before this youthful University are unparalleled; but, without early and continual additions to its pecuniary resources, some exceedingly important ones will have to pass unused."

The following chairs should be endowed at once: Greek Language and Literature, Latin Language and Literature, History and Political Economy, Modern Languages, Natural Sciences (at least two chairs), and Mathematics.

The following buildings should be erected: A Hall

of Science, a Fine Art Museum, a Library, and a Chapel and Music Hall.

One cottage for young ladies is provided for. At least three others, costing not less than \$10,000 each, are imperatively needed at once.

The different departments need increased facilities. The Medical College should have enlarged accommodations, including a hospital and larger laboratories. The Law School, just organized, should be provided for. The Colleges of Music and Fine Arts would have their usefulness vastly increased by being placed upon a firm financial basis. The School of Theology will need endowment for professorships, lectureships and libraries. Some one, by a gift of \$10,000 to \$20,000, could establish here a lectureship on preaching which would be a blessing to this entire region.

Other needs are pressing. An annual addition of a thousand volumes to the library of the College of Liberal Arts is imperative. A fund for such lectures as those given by President Bashford and Dr. Little is a necessity. Scholarships and aid for needy students could be used almost daily. Prizes and fellowships, similar to those already established, would be a perpetual inspiration to hard work and high endeavor.

Many persons own real estate or other property in small or large amounts which could be given or willed to the University for the purposes named. The best way is to give while living and watch the blessed results. The next best way is to provide for part of your property coming to the University by making it one of your heirs. For the benefit of such as are inclined to remember us we insert here forms of bequest:

I give and devise to the Trustees of the Colorado Seminary, and its successors and assigns forever, the following lands and tenements, [description] in.....County, in the State of

I give and bequeath to the Trustees of the Colorado Seminary the sum of.....dollars, to be paid by my executor out of my estate within.....months after my decease.

I give and bequeath to the Trustees of Colorado Seminary the sum of                      thousand dollars, to be applied, at their discretion, for the general purposes of the University.



I give and bequeath to the Trustees of Colorado Seminary the sum of                      thousand dollars, to be safely invested by them and called the                      Scholarship Fund. The interest of this fund shall be applied, at their discretion, to aid deserving students in the College of Liberal Arts [or other specified department].

I give and bequeath to the Trustees of Colorado Seminary the sum of                      thousand dollars, to be safely invested by them as an endowment for the support of [a Professorship of                      ] in the University [a Lectureship in the School of                      ] etc.

## UNIVERSITY CHARGES.

The charges in the College of Music, the Business College and the Manual Training School, Fine Arts, School of Law, Colleges of Medicine, Dentistry and Pharmacy are given in the announcements of those departments.

### ACADEMIC DEPARTMENT.

#### DAY SCHOLARS.

	BY THE TERM.	COLLEGE CLASSES.	PREPARATORY.
First Term.....	Due Sept. 9.....	\$20 00	\$16 00
Second Term.....	Due Jan. 6.....	16 00	13 00
Third Term.....	Due April 5.....	14 00	11 00
	Total.....	\$50 00	\$40 00

*These rates are fifty per cent. less than heretofore.*

Licensed preachers and children of Clergymen in regular ministerial work, one-half of the above rates.

Scholarship coupons are received for tuition in the Academic Department according to the terms and conditions thereof.

In case of delay of payments beyond the time when due, interest will be charged at the rate of ten per cent. per annum.

A single study is \$1.00 per week.

### YOUNG LADIES' HOME.

#### FOR THE ACADEMIC YEAR.

Furnished room, light, heat, table board, and washing one dozen pieces per week.....	\$215 00
For the first term—due Sept. 3.....	90 00
For the second term—due Jan. 7.....	65 00
For the third term—due April 1.....	65 00
Charges during vacation are \$1.00 per day.	

This is a considerable reduction from last year's charges, and will be reduced still further if possible.

Each boarding student brings two pairs of sheets, two pairs of pillow cases, three pairs of towels and two pairs of napkins—each article indelibly marked.

These terms are open to young ladies in all departments.

*Note*—The extra charge for washing, except for bedding, is fifty cents per dozen.

*All bills are payable in advance to the Dean of the Seminary.*

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## THE JUNIOR PREPARATORY SCHOOL.

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Believing that the necessity for this school, in connection with the University, no longer exists, the Trustees have decided to discontinue the Junior Preparatory School.

Miss Alice J. Brownell and Miss Almeda E. Loomis, who have been in the employ of the Board, will institute a select private school, opening in the fall of 1891. The Board is happy to commend them to the fullest confidence of the public.





# COLLEGE OF FINE ARTS.

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## FACULTY.

WILLIAM F. McDOWELL, A.M., S. T. B., PH.D., CHANCELLOR.

PRESTON POWERS, DEAN,

Principal of the Department of Sculpture and Modeling.

JOHN J. HUMPHREYS,

Instructor in Classic Architecture.

JOHN R. HENDERSON,

Instructor in Wood Carving.

IDA DE STEIGUER,

Principal of the Department of Painting and Drawing.

MRS. E. M. BARBOUR,

Instructor in China Painting.

.....  
Assistant Teacher in Drawing.

.....  
Instructor in Water Color Painting.

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This school, organized with the founding of the University in 1880, has steadily grown in strength and usefulness until it has become the most important Art School of Denver. It now occupies new and greatly enlarged and improved quarters, on Arapahoe street near 14th, and offers opportunity and facility for most thorough and earnest study in all branches of drawing, from the elementary to the finest models of the classic antique, and in painting in oil or water colors from life, landscape, objects, flowers and fruit, also decorative art as it is applied to making the home beautiful.

### INSTRUCTION.

The general course of instruction comprises drawing and perspective from objects, simple geometrical solids, cast of leaves, fruit, vases, ornamental reliefs, from casts of parts of the human figure, arms, hands, feet, and from the antique, model, life and draped figure; and painting in oil or water colors from life, draped model, landscapes, fruit, flowers, game, draperies, and decorated art.

### CERTIFICATES.

Certificates will be given to pupils in any particular branch, if they do not desire to take the entire course.

### DIPLOMA.

To secure the degree of Bachelor of Painting, the student, in addition to completing the technical course, must have spent at least two years in this college, and accomplished the equivalent of preparatory course.

### THE MARGARET EVANS PRIZES FOR 1891-92.

The prizes are the gift of Mrs. Margaret P. Evans.

*First*—To best drawing from antique, \$50.00.

*Second*—To second best drawing from antique, \$25.00.

*Third*—To best drawing from plate fruits, flowers or architectural ornament, \$15.00.

*Fourth*—Second best elementary drawing, \$10.00.

A "Distinguished Certificate of Merit" shall be presented to the one executing the best portrait from life, in black and white.

*Fifth*—To best painting in oil or water colors from nature, a medal. Second best, honorable mention.

The prizes in painting are only awarded to those who have studied six months, or its equivalent, in the Drawing Department. Therefore, it is necessary that the competitors for any of the prizes have been members of the Art Department six months.

In 1891 these prizes were awarded as follows:

For the best drawing from antique, \$50.00, awarded to Miss Florence Burnham.

For the second best drawing from antique, \$25.00, awarded to Mrs. Bedford Rogers.

For the best plate of fruit or flowers, \$15.00, awarded to Miss Jean Trebelli.

For the best elementary drawing, \$10.00, awarded to Miss Glenn Scott.

For the best painting in oil or water colors, medal, awarded to Miss Irene Lovelace.

For the best portrait from life, honorable mention, awarded to Mrs. Wilbur Fisk Adams.

"Distinguished Certificate of Merit" to Mrs. Wilbur Fisk Adams.

### CLASS HOURS.

Painting in oil or water colors, Monday and Friday, from 9 to 12.

Drawing, Tuesday and Friday, from 2 to 5.

Life class, Saturday, from 11:15 to 12. This class is *free* to *all* art students.

A Ladies' class will be formed for those who cannot take the entire course, or who do not desire to enter for the prize.

The class may study all the week, or as much time as they can devote to the work, but it is not necessary or so well for the pupils for the teachers to always be present.

### RULES AND REGULATIONS.

Students can enter any class immediately upon submitting specimens of work which show the necessary proficiency, or by special arrangement with the teacher they may enter for study in any particular branch. Pupils enter for two lessons a week, though more can be arranged for at special prices.

All work done by pupils must be carefully preserved by them, and at the end of the year the best will be selected by the Principal for the Annual Exhibition.

All breakages of casts or damage to art rooms will be at the expense of the pupil.

### TERMS.

Drawing in charcoal from elementary objects or antique, painting in oil or water colors, first term \$20; second term, \$16; third term, \$14. Payable by the term, in advance, to the Dean of the Seminary.

The Department of Sculpture of the University of Denver, in charge of Preston Powers, has greatly advanced during the past year.

Its greatest acquisition consists of a very complete collection of plaster casts, some of them valuable and rare specimens, procured in Italy, through the munificence of Mrs. Margaret P. Evans, so that this department of art instruction may now be said to be very well furnished.

Every style of expression is represented among these casts.

There are beautiful children's heads; delicate female faces, as the St. Cecilia, by Donatello, and a lady's head, by Della Robbia; and strong masculine subjects, as the busts of Julian de Medici, Francesco Sassetti, and Nicolo da Uzzano.

Among the statues are valuable casts of Venus de Medici and the dancing Faun, both difficult to obtain, as the original moulds are worn out, and no more will be allowed to be taken. There is also the original cast of Pampaloni's Cloe, and a fine anatomical figure by Condon.

Portraits in relief, and busts, have been produced, some of which have been cut in marble.

### INSTRUCTION.

This will consist of:

*First.*—SCULPTURE—Modeling in clay of the human figure and its accessories, according to anatomical proportions and classic principles.

*Second.*—MOULDING—The handling of plaster paris and other materials used in reducing the clay model to a permanent form, and in duplicating casts by means of "gelatine and piece-molds."

### LENGTH OF COURSE.

As the progress of the pupils will depend entirely on their perception and application, no specified period can be named as a course of study; in fact every artist learns or *can learn* something more to the last year of his life; he never ceases to be a student.

The first year will be devoted to *simple* modeling from casts and from life as the pupil progresses, till the

hands are accustomed to the manipulation of the clay, and the eyes to seeing form correctly, both in the cast and in the living subject.

From this time, and still in accordance with the pupil's progress, the full length living model will be introduced, placed on a raised platform in the centre of the class-room, the pupils standing at a suitable distance around it, and each modeling the entire figure as quickly and correctly as possible in the one sitting.

During the course of tuition Mr. Powers will instruct the pupils in the principles of artistic anatomy, aided by excellent life-size charts.

#### ADVANTAGES TO STUDENTS OF DRAWING.

This practice of the eyes may be profitably enjoyed by the drawing class as well, and at the same time, with their teacher in attendance. In fact, the modeling and drawing classes should work into each other's hands, if it may be so expressed, as it will be fully as valuable to the pupils of the drawing classes to learn to *make* form while they learn to *represent* it, as for those of the modeling class to learn to *see outlines* by drawing them on paper. The fact that form is the foundation of all the representative arts, is being recognized in all art schools of the present time, and many students are learning to model in order that they may learn to draw correctly. This cannot be too strongly recommended.

#### LECTURES.

As soon as the pupils are sufficiently advanced to appreciate the matter of such lectures, Mr. Powers will, with plates and instruments for illustration, lecture on the Sculpture of the Ancients, beginning with the Egyptians and Assyrians, following its course down through the age of the early Greeks, that of Phidias and his contemporaries, Praxiteles and the sculptors of his time; the decline of sculpture that followed that period, and finally its renaissance under the Pisani and Michael Angelo. These lectures will not be necessarily confined to sculpture, though this will be their objective feature; painting and architecture will come in where they may become necessary in the illustration of the main subject.



While these lectures will be directed to the pupils, they will be open to others interested in art.

#### HOURS OF LESSONS.

As it is an advantage to the pupils to have days to work in, when, without the assistance of the teacher, he has to rely on himself and use what has been taught him in former lessons, the hours with the teacher will be: Class in Modeling from Casts, Tuesday and Friday, from 2 to 5; Class in Modeling from Life, Tuesday and Friday, from 9 to 12. This will give the pupil the other days in the week to work unassisted, if he wishes to be diligent and see what he can do by himself.

For all information and arrangements, apply to Mr. Powers, either at the class-room, during lesson hours, or at his studio in the new Barth Block, Sixteenth and Stout Streets, at other times.

#### REQUIREMENTS.

Each pupil will supply himself with easels and modeling stands as required, also modeling tools and clay covers.

The University provides a sufficient quantity of clay and receptacle to keep it in, also the utensils used in plaster work, such as bowls, spoons and spatulas. For the use of these things, each pupil will be charged the nominal sum of fifty cents per month. As to plaster paris, the pupil can purchase such quantities as he requires from time to time. Life subjects furnished by students at their own expense.

#### REGULATIONS.

*First*—No conversation during lesson hours.

*Second*—Pupils will not be allowed to receive visitors or friends in the class-room during lesson hours.

*Third*—Owing to the nature of the material used in modeling, special neatness must be observed, and no plaster work, except repairing, will be allowed in the class-room—a suitable place being provided for moulding and all such work.

*Fourth*—Pupils will expect to model only such subjects as the teacher assigns to them.

**CHARGES.**

(Term of 12 weeks, two lessons per week.)

Life Class,	- - - - -	\$30
Casts,	- - - - -	25

Payable by the term, in advance, to the Dean of the Seminary.

**CHINA PAINTING.**

Mrs. E. M. Barbour.

Mrs. Barbour is just from Boston and brings with her some of the most beautiful work ever seen in Denver.

**CLASS HOURS.**

Tuesdays and Fridays, from 2 to 5 p. m.

**TERMS.**

China Painting, first term, \$24; second term, \$20; third term, 16.

**CLASSIC ARCHITECTURE.**

Instructor, Mr. J. J. Humphreys, Architect.

A thorough course of Classic Architecture will be given, the course continuing for three years and embracing a thorough study of Classic Architecture and the various styles emanating therefrom. An industrial course is also given to those interested in the building trades.

Classes are held three evenings per week. School year, six months' duration.

TERMS: \$40 per School Year.

**WOOD CARVING.**

Instructor, Mr. J. R. Henderson.

Mr. Henderson will teach the Renaissance and other conventional ornamental styles of this branch of art work, not confining himself, as many other teachers in this country do, to the usual flower and other natural ornaments.

CHARGES : (Term of 11 weeks, 2 lessons per week) \$16.

The course in Architecture, Sculpture and Wood Carving are all as well adapted to ladies as to gentlemen. These subjects combine the artistic and the useful in a very marked degree.

### WATER COLOR PAINTING.

A thoroughly competent teacher of this branch will be employed for the next year, and a full course of instruction given. The name of the teacher and the terms will be announced hereafter.

# CONSERVATORY OF MUSIC.

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## FACULTY.

WILLIAM F. McDOWELL, A.M., S.T.B., PH.D., CHANCELLOR.

GEORGE F. BRIERLEY, DEAN.

Vocal Instructor, Director of Chorus, Instructor in Solfeggio.

HENRY HOUSELEY, F. C. O.,

Instructor in Piano, Organ and Theory.

MISS MINNIE B. HYDE,

Instructor in Piano.

MISS GRACE E. TOWNSEND, B. A.,

Instructor in Violin, Piano and Voice.

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No art is more generally studied than music, while among its instructors the widest possible differences exist as to methods. It is the aim of the University to make the Conservatory of Music a medium for a thorough musical education on a broad and substantial basis.

MR. GEO. F. BRIERLEY, who has been in charge of the Vocal Department the past year, will still continue as Vocal Instructor and Dean of the Conservatory of Music. His services have met with such appreciation that he has been appointed Choir Instructor in the Trinity M. E. Church, of Denver, and is to serve also as tenor in the solo quartet. His system of instruction is plain and yet scientific, enabling pupils to understand every principle of the vocal art, and giving them possession of a method which preserves and beautifies the voice, removing all wrong vocal effort and developing nature's form, giving ease and comfort in the use of the voice.

MR. HENRY HOUSELEY, Fellow of the College of Organists, London, who has had charge of the advanced pupils in piano, organ and theory, will continue at the

head of these departments. Mr. Houseley has, since his connection with the University, been elected to the position of Organist and Choir Master at St. Mark's Protestant Episcopal Church, of Denver, a worthy testimonial to his ability as organist and teacher. He inspires in his pupils a love for music, an earnest desire to know, and power to express what it should say to the listener. As a theorist, his own compositions which are sung by the large choirs of Denver, attest his ability in this much neglected line of study for vocalist and instrumentalist.

MISS MINNIE HYDE has been engaged to assist in the Piano Department. Of her work as pianist, the *Denver Music and Drama*, in its issue of Feb. 7, 1891, says: "Miss Hyde certainly reached a high artistic level in her rendition of this masterpiece (Beethoven's Concerto in C-minor), and whether in the brilliant execution of the first movement, the tender legato of the second, or the massive arpeggio work of the third, each and all showed the true artist." Miss Hyde will aim to carry out the principles of the Conservatory, viz: that music means something, and will aim to develop in the pupil what she already possesses herself, a true interpreting spirit, which enables the performer not only to please the ear, but also satisfy the mind of the listener.

MISS GRACE E. TOWNSEND, B. A., (Syracuse University), will continue in charge of the Violin Department, also assisting in the piano and vocal work. She has been greatly favored in enjoying the teaching of the best masters in her line of study, among whom was Dr. Schultze, for so many years the 1st violin of the famous Mendelssohn Quintette Club, of Boston. Her solo work and teaching have been very well received, and her well established method of the acknowledged best schools, commend her to all students of the violin.

#### VOCAL CULTURE.

The acquiring of the knowledge or art of using the voice requires a teacher with a system as thoroughly scientific as is used by the very best teachers of any of the manual arts. There must be perfect mastery of principles and formulas, control of muscular forces and development of the mental powers in the student on as

broad a scale for the phonetic art, as is required for any of the sister arts embraced in the curriculum of a liberal education. To know how an effect is produced, to be able to produce such effect at will; to know what are the secret sources of proper breath control, power, execution, quality and expression, these are all possible to the student of vocal art of to-day; and while the teacher should not try to make an anatomist out of a vocalist, yet there are forces, muscles, conditions, that can be controlled by proper thinking, evidenced by proper feeling and put into operation by the will of the singer, and no one is thoroughly equipped as a vocalist until the factors of the voice are as truly employed in their mission to produce tone, touch, color, in song rendition, as the finger, arm and wrist muscles of the pianist are in an instrumental rendition.

#### VIOLIN—ORCHESTRAL INSTRUMENTS.

There is not a class of musicians that would not be benefited by an increased number of string instrument players. It supplies the pianist with the means of performing some of the finest works of musical art. Accompanists who can sing or play a string instrument (which is the best substitute for the voice) will be in greater demand because they will be in sympathy with the soloists, and thus assist them. To the organist the study of instrumental effects is indispensable, and to the composer it would afford opportunity for more frequent and adequate performance of his works. It is an acknowledged fact that there is no surer means of *developing the ear*, impressing *rhythm* and gaining *clear* and *accurate phrasing* than by the study of stringed instruments, to say nothing of the field of musical literature which is open to this class of musicians in the line of solos, trios, quartettes, etc.

#### THE PIANOFORTE.

To the musical student, whatever branch of the art may be chosen, practical or theoretical, the study of the pianoforte is a *sine qua non*. The successful pianist must possess two joint and important elements, viz.: The Mechanical and Emotional. While giving the former its due share of attention, the student ought not to overlook



the latter very essential quality. These two features, if properly encouraged, will culminate in a sound and harmonious balance between mind and matter, a consummation devoutly to be wished for, in these days of empty and vapid digital display, much to be deprecated. It will be the earnest effort of the teacher of this department to train their pupils on broad lines, to foster a taste for the emotional as well as the intellectual and mechanical aspects, and to help to develop a school of pianists, notable alike for its earnest thinkers as well as its brilliant performers.

### THE ORGAN.

This giant among musical instruments forms an important feature in musical education of the present day. Essentially an instrument for the church, its study ought to exercise that thought and thoroughness which—from its dignified position in the sacred offices of public worship—it naturally demands. A preparatory course on the piano is necessary, and greatly facilitates progress on the “King of Instruments.”

### HARMONY AND MUSICAL ANALYSIS.

The study of the above cannot be too strongly urged. What a deplorable condition to be ignorant of the grammar of one's art! The want of this knowledge among so-called musicians is amazing. Let the student give a fair proportion of time to this indispensable subject, and he will learn to interpret and appreciate the works of the great masters with a sevenfold increase of intellectuality and enjoyment.

### TUITION.

#### PREPARATORY COURSE (PIANO).

	1st Term, 16 Weeks.	2nd Term, 13 Weeks.	3rd Term, 11 Weeks.
Private lessons, one-half hour per week....	\$ 8 00	\$ 6 50	\$ 5 50
“ “ two lessons per week .....	16 00	13 00	11 00

#### ADVANCED COURSE (PIANO).

Private lessons, one-half hour per week....	\$16 00	\$13 00	\$11 00
“ “ two lessons per week .....	32 00	26 00	22 00

HARMONY, THEORY, COUNTERPOINT, MUSICAL FORM  
AND COMPOSITION.

Private lessons, one-half hour per week ..	\$16 00	\$13 00	\$11 00
“ “ two lessons per week .....	32 00	26 00	22 00

## VOCAL DEPARTMENT.

*Terms for one month.*

Private lessons, one-half hour per week .....	\$ 6 00
“ “ two lessons per week .....	12 00

Organ, harmony, (in class) ensemble (orchestral) and chorus pupils at special rates.

## INSTRUMENTAL PUPILS.

Mamie Pattison,	Martha Hall,
Miss McIlvain,	Fanny Nicholl,
Alice Niles,	Anna Cook,
Louise Hopkins,	Bessie Jerome,
Miss Knutzen,	Grace Hall,
Miss Raymer,	Della Harger,
Ada J. Townsend,	Emma Morse,
Myrtie Gutzler,	Eva B. Warren,
Mary Church,	Belle Estes,
Katie Sperry,	Alvida Bloom,
Mary Thompson,	Mrs. Neva,
Belle Cameron,	Carrie Briggs,
Carrie Sawyer,	Irene Viancourt,
Carrie Sinnock,	Minnie B. Dodge,
Sadie Lump,	Belle Paul,
Louise Pinkney,	Mamie Weiser,
May Iliff,	Lou Ormsby,
Maud McQueary,	Nellie Toovey,
Mrs. Trumball,	Violet Toovey,
Mrs. Hamacher,	Cora Sopris,
Mrs. Sparkman,	Grace Bryant,
Mr. Hauser,	Earle Clarke Thornton,
Mr. Hopkins,	James Rundel,
Mr. Osborne,	Anne Anstee,
Mr. Scudamore,	Daisy Cross,
Mr. Brown,	Josephine Weidner,
Edith Fay,	Hermann Wortman,
Sarah Blamey,	Grace Evans,
Fannie Chamberlin,	Grace Kitzmiller.
Winifred Masten,	Maud Melburn,

Effie Loomis,  
Josephine Osborne,  
Sarah Comstock,  
Bessie Plummer,  
Ella Morris,  
Jessie McConnell,

Allie Rice,  
Nellie Higginson,  
Charlie Fearnley,  
Mabel Fearnley,  
Helen Dilley,  
Bernard Oettinger.

#### VOCAL PUPILS.

Belle Estes,  
Sarah Comstock,  
Addie Miller,  
Lois Stuart,  
Lillie Loeb,  
Belle R. Cameron,  
Inez M. Sibert,  
Anne Cook,  
Alice Healy,  
May Gibson,  
Louise Kavanagh,  
Miss N. E. McKissick,  
Lena Landon,  
May Laughlin,  
Mabel Daniels,  
Miss Vaughan Smith,  
Lou Ormsby,  
Della Harger,  
Grace Evans,  
Mrs. J. D. Barns,

Mrs. Feix,  
Mrs. H. L. Davis,  
Mrs. M. L. Spring,  
Mrs. Trumbull,  
Mrs. Hipp,  
B. L. Havens,  
E. S. Cullis,  
Ch. Lotz,  
T. Waters,  
Geo. Wilson,  
Ed. Kimball,  
G. H. Sethman,  
Mr. McConnell,  
E. Reid,  
I. E. Kennedy,  
E. F. Benedict,  
Marion Law,  
Ch. McCord,  
Jos. Post,  
H. L. Shattuck,

# COLLEGE OF MEDICINE.

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## FACULTY.

WM. F. McDOWELL, A. M., S. T. B., Ph. D., CHANCELLOR.

J. C. DAVIS, M. D., DEAN.

W. E. WILSON, M. D., VICE-PRESIDENT.

S. A. FISK, A. M., M. D., SECRETARY.

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H. K. STEELE, A. M., M. D.,

Emeritus Professor of the Principles and Practice of Surgery.

J. W. GRAHAM, M. D.,

Emeritus Professor of Medicine.

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F. J. BANCROFT, M. D.,

Professor of Fractures and Dislocations.

J. C. DAVIS, M. D.,

Professor of the Principles and Practice of Surgery.

C. M. PARKER, M. D.,

Professor of the Practice of Medicine.

A. STEDMAN, M. D.,

Professor of Obstetrics and Puerperal Diseases.

CHARLES DENISON, A. M., M. D.,

Professor of Diseases of the Chest and of Climatology.

W. E. WILSON, M. D.,

Professor of Materia Medica, Therapeutics and the Diseases of Children.

S. A. FISK, A. M., M. D.,

Professor of the Practice of Medicine.

EDMUND J. A. ROGERS, M. D.,

Professor of Clinical Surgery and Adjunct Professor of Principles and Practice of Surgery.

E. C. RIVERS, M. D.,

Professor of Ophthalmology and Otology.

H. H. HOWLAND, M. D.,

Professor of Laryngology and Rhinology.

J. W. COLLINS, M. D.,  
Professor of Gynæcology.

O. J. PFEIFFER, M. D.,  
Professor of Orthœpedic Surgery and Clinical Surgery.

J. A. SEWALL, M. D., LL. D.,  
Professor of Chemistry.

A. K. WORTHINGTON, M. D.,  
Professor of Anatomy.

HENRY SEWALL, M. D.,  
Professor of Physiology.

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### LECTURERS.

JESSE HAWES, M. D.,  
Adjunct Professor of Obstetrics.

C. B. LYMAN, M. D.,  
Lecturer on Fractures and Dislocations.

A. A. CLOUGH, A. M., M. D.,  
Adjunct Professor of Chemistry.

B. C. LEAVITT, A. M., M. D.,  
Lecturer on Therapeutics and Materia Medica.

H. B. WHITNEY, A. M., M. D.,  
Lecturer on Genito-Urinary Diseases.

E. R. AXTELL, M. D.,  
Lecturer on Pathology and Histology.

G. W. GIBSON, M. D.,  
Demonstrator of Anatomy.

J. W. COLLINS, JR., M. D.,  
Dispensary Physician.

C. H. MACLEAN, M. D.,  
Dispensary Physician.

G. W. MIEL, M. D.,  
Lecturer on Bandaging and Minor Surgery.

I. B. PERKINS, M. D.,  
Assistant in Gynæcology.

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Lecturer on Hygiene.

GEORGE W. CALDWELL, M. D.,

Dispensary Physician.

J. M. FOSTER, M. D.,

Dispensary Physician to Eye and Ear.

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### GENERAL STATEMENT.

Instruction in this school is given by lectures, recitations, clinical teaching and practical exercises.

The Eleventh Annual Session will begin September 16th, 1891, and will close on the third Wednesday of April, 1892, at which time the commencement exercises will take place. The Lecture Course will, therefore, extend over a period of seven months. The complete course is graded and embraces an attendance upon three Lecture Courses, with an examination at the end of each course.

An entrance examination will be required of all applicants for admission to the school who are not able to present a diploma from a High School, or its equivalent.

### DIVISION OF STUDIES.

The arrangement of the courses is as follows:

*First Year*—Anatomy, Physiology, Histology, Materia Medica and Chemistry.

*Second Year*—Anatomy, Physiology, Materia Medica and Therapeutics, Chemistry, Principles and Practice of Medicine and Clinical Medicine, Principles and Practice of Surgery and Clinical Surgery, Obstetrics, Gynæcology.

*Third Year*—Principles and Practice of Medicine and Clinical Medicine, Principles and Practice of Surgery and Clinical Surgery, Obstetrics, Diseases of Children, Gynæcology, Ophthalmology and Otology, Laryngology, Diseases of the Chest, Climatology, Physical Diagnosis, Mental and Nervous Diseases, Medical Jurisprudence and Public Hygiene, and Diseases of the Genito-Urinary Organs.



## METHODS OF INSTRUCTION.

ANATOMY—Three lectures a week, to be illustrated by the skeleton, charts, the manikin, and especially by dissections before the class.

The Demonstrator of Anatomy will meet the students daily in the dissecting room, and will keep a record of the quantity and quality of work done by each student.

Certificates of two courses of dissection will be required of each student before he can come up for graduation.

PHYSIOLOGY—The course will consist of three lectures and recitations a week upon the structure and functions of the various organs, with such practical demonstrations and experiments as are necessary for a clear understanding of the subject.

CHEMISTRY—Three lectures a week. It will be the aim of those having charge of this department to thoroughly equip the student with such knowledge of Chemistry as will be of use to him as a practitioner of medicine. The Professor and his assistant will give especial attention to laboratory instruction.

MATERIA MEDICA AND THERAPEUTICS—Two lectures a week.

THE THEORY AND PRACTICE OF MEDICINE—This department is under the supervision of four Professors, viz:

(1.) (2.) *The Professors of the Practice of Medicine* will devote their attention to teaching the diagnosis and treatment of disease.

(3.) *The Professor of Diseases of the Chest and of Climatology*, who, by a lecture and a clinical exercise every week, will instruct the students in the methods of examination with reference to pulmonary and cardiac lesions, and also in the relation of climate to the production or cure of disease.

(4.) *The Professor of Diseases of the Mind and Nervous System*—Two lectures a week. Especial attention paid to differential diagnosis and to treatment. The subject of diseases of the kidney and urinary organs is also embraced by this chair.

SURGERY—Instructions will be given by the following Professors, viz:

(1.) *Professor of the Principles and Practice of Surgery*—Two lectures each week.

(2.) *Professor of Fractures and Dislocations*—One exercise each week to instruct in the methods of reducing fractures and dislocations, and of applying splints and bandages.

(3.) *Professor of Orthopædic Surgery*, who will give one lecture a week.

OBSTETRICS AND PUERPERAL DISEASES—Two lectures a week. As opportunity may present, the students will be given bed-side instruction.

GYNÆCOLOGY—Didactic and clinical teaching.

PUBLIC HYGIENE—One lecture a week.

HISTOLOGY AND PATHOLOGY—One lecture each week, with exercises in the histological laboratory. This has recently been fitted up with microscopes of the best workmanship, and each student is provided with his own table and appliances.

Free hand drawings of the sections is encouraged, besides which the student is taught to prepare his own specimens. During the course the student acquires a valuable collection of slides.

Free hand section cutting as a routine process, will be largely dispensed with, each member of the class being supplied with the necessary sections, ready cut by the microtome.

Special attention is called to the fact that no fee is charged for the Microscopical Course.

OPHTHALMOLOGY AND OTOTOLOGY—A complete course is delivered upon the diseases of the eye and ear, including clinical instruction and the use of the ophthalmoscope.

LARYNGOLOGY AND RHINOLOGY—The Professor of Laryngology and Rhinology will give a complete course upon the diseases of the throat and nose, with clinical instruction. Matriculants will be carefully taught the method of making examinations, the use of instruments and the making of topical applications.

GENITO-URINARY DISEASES—One lecture a week, and clinics as cases present.

MEDICAL JURISPRUDENCE—One lecture a week after the holidays.

CLINICAL INSTRUCTION—Two clinics each week will be given throughout the entire course at the County Hos-

pital, under the direction of Professors who are members of the staff. Dispensary work is made a prominent feature of the course.

*Special Clinics* will also be given from time to time, and opportunity afforded to assist in operations, as cases may present, by the members of the Faculty who are members of the staff to St. Luke's Hospital, and by the Faculty generally, as available cases occur in private practice. Clinics in Gynæcology at the County Hospital, by Professor Collins, and when possible, students will also be invited to assist in private cases.

#### TEXT BOOKS.

The following are recommended as text books and works of reference for the several departments represented by members of the Faculty:

*Anatomy*—Gray, Holden, Quain, Weisse.

*Physiology*—Yeo, Kirke, Huxley, Foster, Dalton.

*Chemistry*—Witthaus, Roscoe, Fownes, Attfield, Muir.

*Materia Medica*—Bartholow, Wood, Biddle, United States and National Dispensatories.

*Surgery*—Agnew, Gross, Bryant, Erichsen.

*Surgical Pathology*—Billroth, Green, Cornil and Ranvier and Coates.

*Practice of Medicine*—Flint, Stump, Roberts, Reynolds, Bartholow, Bristowe, Loomis, Aitken.

*Medical Pathology*—Green, Coates, Woodhead.

*Histology*—Klein, Frey, Stricker, Heitzman.

*Microscopy*—Frey, Beale.

*Obstetrics*—Playfair, Lusk, Leishman, Cazeaux, Barker on Puerperal Diseases.

*Gynæcology*—Munde, Thomas, Emmett, Sims.

*Diseases of Children*—Meigs and Pepper, Smith, Ellis.

*Diseases of the Chest*—Flint, Walsh, Loomis, Ingals.

*Diseases of the Nervous System*—Gowers, Hammond, Clouston, Bramwell.

*Fractures and Dislocations*—Hamilton.

*Diseases of the Throat*—Lennox Brown, Cohen, McKenzie.

*Diseases of the Eye*—Williams, Wells, Carter, Juler.

*Diseases of the Ear*—Turnbull, Burnett, Roosa, McBride.

*Medical Jurisprudence*—Taylor, Wharton and Stille.

*Diseases of the Skin*—Duhring, Fox, Hebra.

*Reference*—Dunglison's Medical Dictionary, United States Dispensatory.

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### REQUIREMENTS FOR THE DEGREE.

Every candidate must be twenty-one years of age, and of good moral character. He must also have attended three courses of lectures at a regular medical college, the last of which shall have been at this school, and have passed the required examinations. In no case will two lecture courses within the same year be accepted.

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### EXAMINATIONS.

An entrance examination will be required of all applicants who are not able to present a diploma from a High School or its equivalent. The subjects upon which such an applicant will be examined are English, Arithmetic, Geography and Elementary Physics.

At the end of each year the student will be examined upon the subject of the year, preparatory to taking the lectures of the succeeding grade.

In order to present himself for a final examination in any department, a student will be required to have attended two courses of lectures in that department, except in Medical Jurisprudence, Hygiene and the various special departments of Medicine and Surgery.

The evidence of attendance upon a course, in any department, will be the presentation of a card signed by the professor having charge of that department, and in order that a card may be so signed, the student will be required to have attended at least seventy-five per cent. of the lectures in that department.

Where a matriculating student can show that he has previously studied Chemistry or Materia Medica, and can pass a satisfactory test examination in these subjects, he will be allowed to enter for the final examination in them at the end of his first year.

The examinations will be written and oral, and there will be practical examinations on the cadaver, bones, sections, etc., in Anatomy, and also in diagnosis and treatment in Clinical Medicine and Clinical Surgery.

### FEES.

[ALL FEES PAYABLE IN ADVANCE.]

Matriculation fee .....	\$ 5 00
Lecture fees for the full course, ....	75 00
Admission to the dissecting room .....	5 00
Material at cost.....	
Laboratory work at cost.....	
Examination for graduation (not returnable).....	30 00

There are a few scholarships for deserving students at the disposal of the Dean.

Alumni of this College can attend the lectures of this school by matriculating, and alumni of other regular medical colleges can attend by matriculating and paying one-half the regular fees.

Students who have attended two full courses of lectures at this College will be admitted to a third course upon the payment of the matriculation fee only.

Students who have attended two full courses of lectures at regular medical schools, one of which shall have been at this College, are admitted to the third course of lectures by matriculating and paying one-half the regular fees.

(Board and rooms can be obtained in the city at from \$5 to \$10 per week.)

For further information, address the Secretary,

SAMUEL A. FISK, A. M., M. D.

37 *Eighteenth Avenue, Denver, Colo.*



# LECTURE SCHEDULE--SESSION 1891-92.

HOURS.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY	FRIDAY.	SATURDAY.
9 to 10 a. m.	<i>Dr. Artell.</i> Pathology and Histology.	<i>Prof. Rivers.</i> Ophthalmology and Otolgry.	<i>Dr. Hawes.</i> Obstetrics.	<i>Prof. Edmundson.</i> Hygiene.	<i>Prof. Worthington.</i> Anatomy.	<i>Dr. Miel.</i> Bandaging.
10 to 11 a. m.	<i>Prof. Fisk.</i> Nervous Diseases.	<i>Dr. Leavitt.</i> Materia Medica.		<i>Prof. Wilson.</i> Materia Medica.	<i>Prof. Fisk.</i> Kidney Disease.	
11 to 12 a. m.	<i>Prof. Denison.</i> Diseases of Chest.	<i>Prof. Parker.</i> Practice of Medicine.	<i>Dr. Whitney.</i> Genito-Urinary.	<i>Prof. Denison.</i> Clinical Diagnosis Diseases of Chest	<i>Prof. Parker.</i> Practice of Medicine.	<i>Prof. Pfeiffer.</i> Surgical Clinic
1 to 2 p. m.	<i>Prof. Howland.</i> Laryngology and Rhinoogy.	<i>Prof. Rogers.</i> Clinic at County Hospital.		<i>Prof. Rogers.</i> Clinic at County Hospital.	<i>Prof. Howland.</i> Clinic.	
2 to 3 p. m.	<i>Prof. Sewall.</i> Physiology.		<i>Prof. Sewall.</i> Physiology.		<i>Prof. Sewall.</i> Physiology	
3 to 4 p. m.	<i>Prof. Worthington.</i> Anatomy.	<i>Prof. Sewall.</i> Chemistry.	<i>Prof. Worthington.</i> Anatomy.	<i>Prof. Sewall.</i> Chemistry.	<i>Prof. Sewall.</i> Chemistry.	
4 to 5 p. m.	<i>Prof. Sledman.</i> Obstetrics and Puerperal Disease.	<i>Prof. Davis.</i> Surgery.	<i>Prof. Bancroft.</i> Fractures and Dislocations.	<i>Dr. Collins.</i> Gynaecology.	<i>Prof. Davis.</i> Surgery.	
7 to 9 p. m.	Dissecting.	Disecting	Dissecting.	Dissecting.	Dissecting.	

DISPENSARY, 5 TO 6 EVERY DAY EXCEPT SATURDAY.



## ALUMNI.

Albers, U. L.	1883
Anderson, A. E.	1886
Arbogast, B. A.	1883
Bailey, M. M.	1884
Bennett, H. M.	1886
Brown, E. E.	1891
Baker, J. A.	1891
Caldwell, G. W.	1891
Campbell, J. O.	1882
Carlin, P. V.	1882
Clifford, J. J.	1887
Clough, A. A.	1886
Coleman, A. W.	1888
Collins, J. W.	1888
Cooney, James	1889
Davison, J. L. T.	1888
Dawson, H. H.	1890
Debeque, W. A. E.	1882
Downing, S. N. A.	1884
Durbin, L. T.	1884
Elliott, G. H.	1882
Estes, N. D.	1886
Geddes, Thomas	1889
Gibbs, S. E.	1883
Gibson, G. H.	1885
Green, J. L.	1886
Hay, Mrs. Rilla G. <i>ad eundem</i>	1885
Hills, W. W.	1885
Hoeffer, A. H.	1886
Ingraham, G. W.	1883
Jackson, F. A.	1888
Johnson, Abijah	1882
Johnson, Carl	1891
Lawney, Eleanor M.	1887
Liddell, E. M.	1889
Litton, Forbes, M. D., London Eng., <i>Honorarg</i>	1882
Lyon, Frank J.	1891
MacDonald, N. G.	1884
MacLean, L.	1888
Martin, C. H.	1885

Manly, Charles H., A. B., M. A. . . . .	1891
Mertz, L. B. . . . .	1889
Mayne, D. J. . . . .	1890
Meine, Carl T. . . . .	1890
Moorehouse, P. E. . . . .	1885
Pendleton, G. W. . . . .	1888
Perkins, I. B. . . . .	1886
Robbins, A. B., <i>Honorary</i> . . . . .	1885
Roby, W. C. . . . .	1890
Sewall, Henry . . . . .	1889
Sheets, E. A. . . . .	1889
Solly, S. Edwin, M. D., <i>Honorary</i> . . . . .	1888
Smeallie, W. G. . . . .	1883
Stearns, H. . . . .	1886
Stenhouse, J. . . . .	1886
Sveinbjorson, A. . . . .	1886
Thomson, David . . . . .	1891
Taylor, Hugh L. . . . .	1891
Vroom, J. N. . . . .	1889
Walker, M. A. . . . .	1889
Worthington, R. H. . . . .	1884
Wright, W. M. . . . .	1888

## MATRICULANTS, 1890-91.

Allison, E. H., . . . . .	Colorado
Atcheson, Geo., . . . . .	"
Baker, Jas. A., . . . . .	"
Beebe, J. C., . . . . .	"
Bellows, E. L., . . . . .	"
Braden, W. C., . . . . .	Ohio
Brown, Elizabeth E., . . . . .	Colorado
Caldwell, G. Walter, . . . . .	"
Carlin, Thos. J., . . . . .	"
Clark, Leonard H., . . . . .	"
Cole, Geo. L. H., . . . . .	New York
Collins, W. B., . . . . .	Tennessee
Craig, A. R., . . . . .	Colorado
Dana, L. Clarke, . . . . .	Massachusetts

Davis, Wm. B.,	Colorado
Ferguson, C. J.,	"
Fish, Earl H.,	"
Freeman, W. L.,	"
Goddard, Geo. A.,	Massachusetts
Greene, Mrs. J. E.,	Colorado
Haight, M.,	Ontario
Hart, Margaret,	Colorado
Haxby, Henry G.,	"
Henderson, John T.,	"
Howard, Sullivan,	"
Hull, Chas. A.,	"
Johnson, Carl,	"
Kneeland, H. G.,	"
Knight, R. B.,	"
Lyons, Frank J.,	Utah
Manly, Chas. H.,	Colorado
Means, E. A.,	"
Moore, Will,	"
Morgan, Anna E.,	"
McConnell, Wm.,	"
Nash, W. G.,	Texas
Neva, Jno. S.,	Colorado
Pederson, P. Hyrup,	Denmark
Pfeiffer, C. Alfred,	Maryland
Richmond, J. Arthur,	Illinois
Roberts, Una J.,	Colorado
Sandner, Richard,	Germany
Simon, S.,	Colorado
Sisson, David,	"
Smith, Jas. W.,	"
Smith, D. H.,	"
Spratlin, P. E.,	"
Stover, G. H.,	"
Taylor, Hugh L.,	"
Taylor, Ralph L.,	"
Thompson, David,	Pennsylvania
Voorhoeve, Jacob,	Colorado
Weeks, J. J.,	"
Wheeler, Eugene A.,	Tennessee

# COLLEGE OF DENTAL SURGERY.

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The fourth Winter Session will begin on September 16, 1891, and close on the third Wednesday in April, 1892.

## FACULTY.

W. F. McDOWELL, A.M., S.T.B., PH.D., CHANCELLOR.

THOMAS GADDES, M. D., L. D. S. Eng. and Edin. DEAN.

P. T. SMITH, D. D. S.,

Professor of Dental Anatomy and Physiology.

THOMAS GADDES, M. D., L. D. S. Eng. and Edin.,

Professor of Dental Histology and Microscopy.

GEO. J. HARTUNG, D. D. S.,

Professor of Oral Pathology and Surgery.

J. M. NORMAN, D. D. S.,

Professor of Operative Dentistry.

W. E. GRISWOLD, D. D. S.,

Professor of Prosthetic Dentistry and Metallurgy.

A. K. WORTHINGTON, M. D.,

Professor of Anatomy.

HENRY SEWALL, M. D.,

Professor of Physiology.

W. E. WILSON, M. D.,

Professor of Materia Medica.

JOSEPH A. SEWALL, M. D., LL. D.,

Professor of Chemistry.

W. G. GIBSON, M. D.,

Demonstrator of Anatomy.

R. S. CLARKE, D. D. S., PH. G.,

Demonstrator of Mechanical Dentistry.

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Demonstrator of Operative Dentistry.

## EDUCATION.

The Academical year is from September to April.

(1.) An entrance examination will be required of all applicants for admission to the College who are not able to present a diploma from a high school, or its equivalent. The subjects of the examination are English, arithmetic, geography and elementary physics. This examination meets the requirement of the National Association of Dental Faculties.

(2.) The course of study occupies three years, and embraces the following subjects:

*First Year*—Anatomy, Dissection, Physiology, Materia Medica, Chemistry, Prosthetic Dentistry, Dental Histology and Microscopy, Operative Dentistry, Laboratory Instruction, Infirmary Instruction, Dental Anatomy and Physiology, Oral Pathology and Surgery.

Pass examination for preferment to higher grade.

*Second Year*—Anatomy, Dissection, Physiology, Materia Medica, Chemistry, Dental Anatomy and Physiology, Dental Histology and Microscopy, Oral Pathology and Surgery, Operative Dentistry, Prosthetic Dentistry and Metallurgy, Laboratory Instruction, Infirmary Instruction.

Pass final examination in Anatomy, Physiology, Materia Medica and Chemistry. (See clause 5, page 70.)

*Third Year*—Dental Anatomy and Physiology, Dental Histology and Microscopy, Oral Pathology and Surgery, Operative Dentistry, Prosthetic Dentistry and Metallurgy, Laboratory Instruction, Infirmary Instruction.

Pass final examination in all the dental subjects.

(3.) An attendance of less than 75 per cent. in any class will not be recognized.

(4.) At the end of each year the student must pass an examination in the several subjects of study for that year before proceeding to the succeeding grade.

(5.) Students are required to attend the classes on Anatomy, Demonstrations on Anatomy, Physiology, Materia Medica and Chemistry, and to pass the same examinations in those subjects, along with the regular students of the Medical Department of the University.

A practical demonstration will be given every week by each of the Dental Professors. Arrangements will be

made for several clinics to be given by other practitioners.

The Demonstrator of Operative Dentistry and the Demonstrator of Mechanical Dentistry will be in attendance daily.

#### REQUIREMENTS FOR GRADUATING DOCTOR OF DENTAL SURGERY.

(1.) Before graduation the student must be twenty-one years of age and of good moral character. Also have attended the lectures, the instructions in the Laboratory and the Infirmary, for three Academical years.

(2.) Each candidate must present for the inspection of the Professor of Operative Surgery operations in the mouth performed by himself in this College. He must also take up at least one artificial case, and bring his patient before the Professor of Prosthetic Dentistry. He must prepare a specimen case to be deposited in the College Museum. Both of these cases must have been executed in the College.

(3.) Students who have already (July, '91) attended one full course of instruction in this College, will be admitted to graduation on completing a satisfactory attendance on a second Winter Term and passing the final examination in all the subjects of the curriculum.

(4.) Any applicant who has attended one or more courses of instruction in a Dental College recognized by the National Association of Dental College Faculties will be credited with the same and admitted to the second or third term (as the case may be) in this School; provided the requirements as to entrance examination be complied with. Such a candidate for graduation must pass an examination in all the subjects of the curriculum.

(5.) A graduate of a reputable Medical College may, by attending in this College for two academical years all the Dental classes and instruction, and passing a satisfactory examination in those subjects, graduate D. D. S.

(6.) Graduates of the Dental Department, who have complied with the requirements of the second year Medical course of instruction, can, by attendance on an additional year of Medical Studies and passing the Final Examination, graduate M. D. of this University.



(7.) The First and the Second and the Final Examinations will be written and oral.

A Thesis will not be required.

## SYLLABUS OF LECTURES

FOR WINTER SESSION 1891-92.

The announcements regarding lectures on Anatomy, the Demonstrations on Anatomy, the lectures on Physiology, Materia Medica and Chemistry, are given in the Medical Section of this Catalogue. See page 65.

### REGIONAL (DENTAL) ANATOMY AND PHYSIOLOGY.

In these lectures attention will be directed to those structures, their relations and functions, that specially pertain to the sphere of Dental practice, as:

Superficial Anatomy of the head, face and neck.

The bones of the head and face, and the osseous structure as a whole—sutures, fossæ, foramina, etc.

The muscles of the head, face and neck.

The vascular system, and the distribution of nerves in those regions.

The various glands—salivary, mucous, tonsillar, lymphatic.

The functions of the teeth—as in mastication, speech, expression.

The functions of the several structures—muscles, vessels, nerves, glands—already considered anatomically.

A general description of the process of digestion; and the influence of the teeth, the secretions of the mouth, stomach, liver, pancreas, intestines, etc., in relation thereto.

### DENTAL HISTOLOGY AND MICROSCOPY.

These subjects will be treated in the following order:

The anatomical classification and forms of teeth, temporary and permanent.

The histological structure of hard tissues: Dentine, Enamel, Bone, Cementum.

The structure of the soft tissues: Tooth Pulp, Peridental Membrane, Periosteum, Gum.

The development of the teeth: The origin, structure, metamorphosis and homologous relations of the several formative organs.

The succession of teeth.

The development of the jaws of man: Of the Antrum, Alveoli, etc.

The methods of preparing and cutting sections of hard structures and of soft tissues, of staining and mounting, will be practically demonstrated.

The lectures will be illustrated by the microscope and the stereopticon. By means of the latter instrument the actual microscopical structures can be projected upon the screen.

For second-year students there will be an advanced course, embracing the outlines of typical dentitions, etc., amongst vertebrata.

#### ORAL PATHOLOGY AND SURGERY.

The following is the order in which these subjects will be considered:

##### PATHOLOGY.

Cells and Cellular Pathology.

Necrosis, Atrophy, Degeneration.

Hypertrophy, Tumors—simple and malignant.

Anæmia, Hyperæmia, Thrombosis, Embolism.

Inflammation: Inflammation of Special Tissues.

Terminations of Inflammatory Process.

Erysipelas, Septicæmia, Pyæmia.

Diseases of Teeth—Faulty Structure, Odontomes, Pathology of Dental Caries and of Diseases of Pulp.

Diseases of Peridental Membrane.

Diseases of Gums.

Diseases of Alveoli and Jaws.

Diseases of Antrum.

Diseases of Lips, Cheeks, Tongue, Hard and Soft Palate.

##### ORAL SURGERY.

The treatment of the several diseases enumerated above, as they come within the range of the specialty, will

be considered, and every advantage will be taken of cases in the Infirmary for illustrating and for demonstrating, as far as possible, the principles enunciated in the lectures.

### OPERATIVE DENTISTRY.

The lectures upon this branch of study will embrace the following subjects:

Examination of the mouth.

General condition of the mouth.

Different diseases of the teeth and gums.

Calculus—its results and treatment.

Dental Caries—varieties, causes, treatment.

Preparation of cavities.

Filling materials.

Root filling.

Alveolar abscess.

Extraction.

Hæmorrhage.

Anæsthetics.

### PROSTHETIC DENTISTRY AND METALLURGY.

Instruction will consist of practical demonstration as far as possible, rather than theoretical teaching from the rostrum, and come in the following order:

#### PROSTHETIC DENTISTRY.

The various appliances of the laboratory. A description of the components of the materials used in construction of the several plastic bases for artificial substitution.

The manipulation of the above, including the taking of impressions, models; of flasking, finishing, etc.

Typical tooth forms; temperament in its relation to the teeth; and both these considerations as aids in the selection and harmonious arrangement of the teeth of substitution.

•Metallic dies and counter dies. Methods of swaging and general manipulation of metal base, such as gold, silver, platinum, etc., with and without rubber attachment.

Demonstration of continuous gum dentures.

ROOT CROWNING—Essential conditions; preparation

of roots; manipulation incident to all methods in general use.

BRIDGE WORK--Descriptions of various methods; and demonstration of many.

#### METALLURGY.

Description of various metals used in Dentistry; their history in the arts; their mineralogy and chemistry. Alloying, and its effects.

Amalgams--Their constituents and the means of analyses; also of zinc and other preparations in use--as plastic filling materials.

Metallurgy will not be included in the first year's studies.

#### FEES.

(ALL FEES ARE PAYABLE IN ADVANCE.)

Matriculation, (paid on entering) . . . . .	\$ 5.00
Full Course (one year), . . . . .	80.00
Dissecting Room, . . . . .	5.00
Graduation Fee, . . . . .	30.00

For graduates, as set forth in clause 5, page 70, the fee is \$50.00, not including matriculation.

The graduation fee must be paid on or before March 1st.

Mr. Haish, of Chicago, with munificent liberality, has provided a new building, admirably adapted to the needs of the several departments of the University having rooms therein. The building was opened in 1888. It is three stories high, with a deep basement, having a frontage of forty feet and a depth of 75 feet. The front elevation of the Haish Building is represented by the wood cut on the cover of this Catalogue. In that portion to the right, with the smaller entrance, are quartered the Medical, Dental and Pharmaceutical Schools. It is furnished with a large Lecture-room, an Amphitheatre, Chemical Laboratory, Physiological Laboratory, Museum, Faculty-room and Library, Dental Infirmary, Dental Laboratory, Pharmaceutical Laboratory, Medical

Dispensary, Waiting-rooms, etc. The Dissecting-room is in an adjoining building. The Faculties have made liberal expenditures in fitting up and providing suitable appliances and apparatuses in the several laboratories.

All information regarding dental studies can be obtained from

THOMAS GADDES, M. D., Etc.,

*Dean of the Faculty,*

1449 Stout St., Denver.

# COLLEGE OF PHARMACY.

## FACULTY.

WILLIAM F. McDOWELL, A.M., S. T. B., Ph. D.,  
Chancellor of the University, and President of Faculty.

J. A. SEWALL, M. D., LL. D.,  
Professor of Chemistry and Dean of the Faculty.

CHARLES M. FORD, Ph. G.,  
Professor of Pharmacy.

JOHN KOCHAN, Ph. G.,  
Professor of Botany and Materia Medica, Secretary of the Faculty.

JOSEPH P. KINLEY, M. D.,  
Professor of Microscopy

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## ALPHABETICAL LIST

### OF THE TEACHING

## COLLEGES OF PHARMACY OF THE UNITED STATES

Whose Diploma, conferring the title of Graduate in Pharmacy, (Ph.G.) are granted to those students who, besides having attended the prescribed course of study, have had four years' practical experience in compounding and dispensing drugs and medicines in a regular established pharmacy.

- ALBANY COLLEGE OF PHARMACY, Albany, New York.
- ✓ CALIFORNIA COLLEGE OF PHARMACY, San Francisco, Cal.
- ✓ CHICAGO COLLEGE OF PHARMACY, Chicago, Ill.
- CINCINNATI COLLEGE OF PHARMACY, Cincinnati, Ohio.
- ✓ DENVER COLLEGE OF PHARMACY, Denver, Colo.
- ILLINOIS COLLEGE OF PHARMACY, Chicago, Ill.
- KANSAS CITY COLLEGE OF PHARMACY, Kansas City, Mo.
- LOUISVILLE COLLEGE OF PHARMACY, Louisville, Ky.
- MARYLAND COLLEGE OF PHARMACY, Baltimore, Md.
- MASSACHUSETTS COLLEGE OF PHARMACY, Boston, Mass.
- NEW YORK COLLEGE OF PHARMACY, New York, N. Y.
- PHILADELPHIA COLLEGE OF PHARMACY, Philadelphia, Pa.
- PITTSBURGH COLLEGE OF PHARMACY, Pittsburgh, Pa.
- ST. LOUIS COLLEGE OF PHARMACY, St. Louis, Mo.



## ANNOUNCEMENT OF THE SESSION OF 1891-92.

THE DENVER COLLEGE OF PHARMACY enters with the coming session upon its fourth annual course. Although still in its infancy, much has been accomplished, and the future looks bright for the dissemination of pharmacal knowledge in the far West.

As is well known, the founding of a school of pharmacy in a place so far removed from the supposed centers of learning, must necessarily meet with many apparently insurmountable obstacles, but it gives us pleasure to announce that all the trials of a beginning have been successfully overcome, and the number of inquiries daily received can point to but one thing, and that is, an assured and prosperous future for this institution.

The public at large have decreed that none but competent persons should be allowed to dispense medicines; laws have accordingly been enacted controlling the practice of pharmacy, and all are required to comply with these laws. But not the fear of the laws alone, but an inherent desire to master the occupation we have chosen for a calling should animate every young pharmacist with a desire to take advantage of the many and excellent facilities which only a college of pharmacy can offer to those wishing to perfect themselves.

Denver, the acknowledged educational as well as commercial center of the West, affords unexcelled opportunities to those seeking perfection in any branch of art or science, and especially those branches which appertain to the profession of Pharmacy.

Denver offers additional advantages to the studious by virtue of its climate, a climate that cannot be excelled for its beneficial effects in stimulating mental and bodily vigor. Students whose health in the East has been precarious, and who consequently fall behind, find here no difficulty in keeping up with their classmates; and what is true of students in other lines is true of students in Pharmacy who had been forced to relinquish their studies because of enervating surroundings.

The instruction during the course will embrace Chemistry, Pharmacy, Pharmacognosy, Botany and Microscopy. Every effort will be made to have the in-

struction given the students in accordance with the advanced views on these various subjects.

### PRELIMINARY EXAMINATION.

As so much of the future success of the pharmacist is dependent upon a knowledge of the ordinary English branches as taught in the grammar schools of the country, applicants for admission will be required to pass a preliminary examination, or present evidence of attendance at an academy or high school. The possession of a degree in one of the liberal arts or professions will exempt the holder from examination. To those not possessing the required evidences of proficiency, due opportunity will be afforded for examination previous to the opening of the term.

### THE CURRICULUM.

The course of instruction will be divided into the following departments:

**CHEMISTRY**—Including Natural Philosophy, Chemical Philosophy and Toxicological Chemistry.

**PHARMACY**—Including Pharmacopœias, Pharmacal Nomenclature, Metrology, Pharmaco-Technology, Pharmacal Chemistry and Dispensing Pharmacy.

**MATERIA MEDICA**—Including Therapeutics, Inorganic and Organic Materia Medica, Toxicology and Posology.

**PHARMACOGNOSY**—Including Structural and Systematic Botany.

**MICROSCOPY**—Including the construction of the Microscope, Micro-Botany and Pharmacal Microscopy.

### CHEMISTRY.

PROF. J. A. SEWELL, M. D., LL. D.

The lectures on Chemistry will be preceded by a short course on those principles of Physics having an important bearing upon the science of Chemistry, a knowledge of which is essential to the student of Pharmacy. The general properties of matter in its different forms will be 'discussed, followed by lectures on Hydrostatics,

Pneumatics, Heat, Light, Electricity and Magnetism, elucidated by experiment wherever possible.

The fundamental principles of Chemistry will be presented, and each important element and its chief compounds will be carefully studied. Their occurrence in nature, physical properties, behavior with other substances, methods for determining their purity, will receive the proper attention.

Organic Chemistry, in its relation to Pharmacy, will engross the latter portion of the term. The practical bearing of the science to the everyday requirements of the Pharmacist will be given first consideration, and to this end the pharmacopœial substances and compounds will be given the preference in description.

#### PHARMACY.

PROF. CHAS. M. FORD, PH. G.

The course in this department will open with a history of the U.-S. Pharmacopœia, its origin and authority, and the relation which it bears to the various Dispensatories.

The subject of Weights and Measures, embracing an explanation of the construction of the different systems, their relations to each other and the superior advantage of an universal decimal system, will receive the attention which its importance demands.

Appliances for estimating weight and volume will then be considered, and the principles of their construction, and conditions which affect their readings, be explained.

Specific Gravity and its application in Pharmacy will be made plain by actual demonstration in the lecture room, and by subsequent operations throughout the course, which involve its application.

The various operations of the pharmacal laboratory, such as comminution, evaporation, distillation, filtration, dialysis, etc., will at first be briefly outlined and defined; a more detailed description of each process to be given with practical demonstration, in considering preparations.

The more important subject of Percolation or Displacement will receive special attention, and will be repeatedly illustrated.

Next will be considered a typical process for each class of the Galencial preparations of the U. S. Pharmacopœia, to which frequent reference shall be made in subsequent lectures; due attention being paid to peculiar features of the drug employed.

Following this the official and unofficial preparations will be taken up in the order of their chemical classification or groupings. Without any fear of infringing upon the domain of chemistry, the reactions and chemical changes in these processes will be carefully explained, with a view not only to an adequate understanding of the same, but to their execution by the dispensing pharmacist, when found necessary or profitable.

Pharmaceutical assaying and the application of Pharmacopœia tests of strength and purity will be taught practically as well as theoretically; and an idea of their frequent use and relative importance duly presented.

The concluding lectures of the course will be devoted to Extemporaneous and Prescription Pharmacy, special attention being paid to the many little problems, pharmaceutical and chemical, in the path of the Dispenser.

#### **BOTANY, MATERIA MEDICA AND PHARMACOGNOSY.**

PROF. JOHN KOCHAN.

The principles of Botany will be taught by lectures, and objectively by means of the herbarium.

The lectures will embrace Morphology, Histology, Physiology and Classification. The characteristics of the more important natural orders, and their medical and pharmaceutical uses, will be explained. The lectures will be exemplified by specimens illustrating the morphological variations of root, stem, leaf, etc.

The blackboard and charts will be called into frequent requisition.

Materia Medica lectures will embrace Animal and Vegetable Pharmacognosy. The official, as well as a number of the unofficial drugs in common use will be described as to their history, properties, identity, medical use, sophistication, methods of determining their purity and detection of adulterations; their relative importance in Pharmacy and Medicine determining the length of

time devoted to each. Toxicology will also receive its proper share of attention.

To familiarize the students with the appearance of the subjects lectured upon, constant demands will be made on the

#### CABINET

containing more than 300 carefully selected specimens of crude drugs, to which constant additions are being made.

#### MICROSCOPY.

PROF. JOSEPH KINLEY, M. D.

Microscopy has rendered such important aid to the Pharmacist that its study and practice will form part of the requirements of this College.

The course of Microscopy will consist of twelve lectures. The theory and proper use of the instrument, as well as the use of the more important accessory apparatus, such as the camera lucida, microtome, micrometer, etc., will be thoroughly explained and demonstrated. The study of the cell, its modification in tissue and arrangement into tissue systems, will receive special attention.

The differentiation of tissues by chemical means and staining fluids, the methods of hardening, imbedding, section cutting, mounting and finishing of mounts, will all be duly considered.

The latter part of the course will be devoted to the use of the microscope in the detection of adulterations in articles of commerce, etc.

#### LECTURE TERM.

The Annual Lecture Term will extend over a period of six months, beginning the first Monday in October, 1891, and ending in April, 1892. Lectures will be given Monday, Wednesday and Friday evenings of each week, and will continue regularly until the close of the term. Upon legal holidays there will be no lectures, nor during the week intervening between Christmas and New Years day.



**REQUIREMENTS FOR GRADUATION.**

The degree conferred by this school is that of GRADUATE IN PHARMACY, (Ph. G.) Applicants for the degree must be at least twenty-one years of age, of good moral character, and must present evidence of having attended two full courses of lectures, one of which may have been taken at some other reputable College of Pharmacy, but the last of which must have been taken at this College. In addition, each candidate for graduation must have had at least four years' practical experience with a competent pharmacist or pharmacists, and furnish satisfactory credentials to that effect, and must have paid all the fees of this College and have passed a satisfactory examination in all the branches taught.

No thesis is required.

**THE SCHOLTZ PRIZE.**

Mr. E. L. Scholtz, the well known Denver pharmacist, has made provision for an annual prize, consisting of a fine compound microscope, to be awarded to the student attaining the highest general average at the final examination; provided such average be not less than 90 per cent.

**FEES FOR TUITION.**

Matriculation Fee (paid but once, but ticket required each session) . . . . .	\$ 5 00
Lecture Tickets, full course (per session) . . . .	50 00
Laboratory Fees (according to time spent in the Laboratory, and for which special rates in each department will be furnished upon application to the professor of the different chairs . . . .	10 00
Graduation Fee . . . . .	10 00

Students who have attended two full courses at the College may attend further courses without charge.

The matriculation fee is to be taken at the opening of the session. The other tickets are to be paid for during the first month of the term.



## TEXT BOOKS AND WORKS OF REFERENCE.

While a few text books only are required, a considerable list is appended. It is recommended that the student purchase at least the first named book appearing after each subject. The others may be purchased, and will be found valuable works of reference :

BOTANY—*Bastin's College Botany*; Gray's Lessons and Manual of Botany, Coulter's Flora of the Rocky Mountains.

CHEMISTRY—*Attfield's*; Bloxam's Organic and Inorganic Chemistry, Remsen's Theoretical Chemistry, Remsen's Organic Chemistry, Muter's Pharmaceutical Chemistry, Witthans' Medical Chemistry.

PHARMACY — *National Dispensatory*; Remington's Pharmacy, Rothers' Beginnings in Pharmacy, Procter's Pharmacy, U. S. Pharmacopœia, Lyon's Pharmaceutical Assaying.

MATERIA MEDICA—*National Dispensatory*; U. S. Dispensatory, Maisch's Organic Materia Medica.

MICROSCOPY—*Manton Beginnings with the Microscope*; Frey, Microscopical Technology.

PHARMACOGNOSY—Fluckiger and Tschirsch's Principles of Pharmacognosy.

Any further information in regard to the College may be obtained by writing or calling on

JOHN KOCHAN, SECRETARY,  
Corner Fifteenth and Larimer Sts.

## MATRICULATES, 1890-91.

Ray Beagle,	Denver, Colo.
Walter Irving Beeson,	Hillsboro, Pa.
Enoch Marvin Brickey,	Fulton, Mo.
Fred. M. Brown,	Leadville, Colo.
Victor A. Carlson,	Sweden
Frank Charles Cook,	Dayton, O.
William P. Hoopes,	Otis, Colo.
H. J. Langdon,	St. Louis, Mo.
Harry Tipton Peck,	Bloomington, Ill.
Harvey B. Posey,	Missouri City, Mo.
Luther F. Smith,	Denver, Colo.
Charles Edward Swem,	Braddock, Pa.
C. D. Patterson,	Denver, Colo.

## GRADUATES.

John Huecker,	Manitowa, Wis.
Augustus Jae Ward,	Detroit, Mich.
Edward Pierce Taylor,	Leadville, Colo.
Frank A. Austin,	Denver, Colo.

## APPLICATION FOR MATRICULATION TICKET.

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FIRST, MIDDLE AND LAST NAME MUST BE WRITTEN IN FULL.

*Name*, .....

*Date of birth*, ..... *day* ..... *month*, 18 .....

*Where from*, ..... *State* .....

*Preceptor* .....

*Length of time in business*, .....

*1st, 2d or 3d course taken?* .....

*Where was previous course taken?* .....

*Was Junior examination passed?* .....

*Address in the City* .....

## THE SCHOOL OF LAW.

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Arrangements are in progress for the opening of this department early in October. It is the purpose of the Board of Trustees to provide facilities for the study of law which shall equal those furnished in any similar institution.

In addition to the regular course of instruction, lectures upon special subjects, such as "Irrigation and Water Rights," "Mines and Mining," "The Public Lands," etc., will be delivered by eminent members of the bench and bar.

The objects of this department will be :

(1.) To afford to young men preparing to enter the legal profession facilities for pursuing their studies under a regular course of instruction with daily lectures, examinations and exercises designed to perfect them in the knowledge of legal principles and practice.

(2.) To afford to the junior members of the profession facilities for pursuing an advanced course of study in branches which were not fully developed in their preparatory instruction, or which they have not since had the opportunity of pursuing.

(3.) To afford to young men engaged in mercantile or other business pursuits, the means of acquiring such knowledge of law as may enable them to prosecute their business with a better understanding of the legal rights and duties involved in their various business relations.

(4.) To afford, in addition to the ordinary legal studies, a course of instruction in those laws which are peculiar to Colorado and the adjoining States and Territories.

(5.) To furnish a course of instruction supplemental to the collegiate education already furnished by the University, thus supplying an important part of a liberal education, disciplining the mind to methods of legal thought and study.

(6.) To maintain a Law School, with such objects

and facilities, *at Denver*, which city, as the capital of the State, and the center of a large and increasing population, is, in respect to its varied industries and commercial interests, the number, organization and variety of its courts, its public offices and records, its libraries, schools and many other institutions, peculiarly fitted to be the seat of a school of law.

A full announcement of the Law Department will be issued in a short time.

Further information may be obtained by addressing

WM. F. McDOWELL,  
*Chancellor of the University,*  
 Denver, Colorado.

During the past year the following lectures have been given in the University, the lecturers giving their services freely for the good of the cause:

SUBJECTS.	LECTURERS.
"The Study of Law," . . . . .	S. G. Williams.
"The Growth of the Law," . . . . .	James B. Belford.
"Legal Maxims and the Study of Leading Cases," . . . . .	W. T. Hughes.
"The Public Welfare is the Highest Law," . . . . .	W. T. Hughes.
"Preparation and Practice," . . . . .	Victor A. Elliott.
"Pleading and Legal Ethics," . . . . .	Merrick A. Rogers.
"The Common Law in the United States," . . . . .	S. G. Williams.
"International Law," . . . . .	Samuel H. Elbert.
"The Higher Law," . . . . .	Hugh Butler.
"Equity Jurisprudence," . . . . .	Herman E. Luthe.
"Jurisdiction," . . . . .	William E. Beck.
"Evidence," . . . . .	W. T. Hughes.
"Res Adjudicata," . . . . .	W. T. Hughes.
"Estoppel and Waiver," . . . . .	W. T. Hughes.
"United States Criminal Law," . . . . .	Andrew W. Brazee.
"The Domestic Relations," . . . . .	V. D. Markham.
"Husband and Wife," . . . . .	W. T. Hughes.
"Partnership," . . . . .	Ralph Talbot.
"Unincorporated Societies," . . . . .	John P. Heisler.
"Agency," . . . . .	Robert Given.
"Medical Jurisprudence," . . . . .	Allen B. Seaman.

"Survivorship," . . . . .	Allen B. Seaman.
"Insanity," . . . . .	Isaac E. Barnum.
"Libel and Slander," . . . . .	Charles Hartzell.
"Landlord and Tenant," . . . . .	W. T. Hughes.
"Eminent Domain," . . . . .	W. T. Hughes.
"Quieting Titles to Land," . . . . .	F. A. Williams.
"Mining Law," . . . . .	Stuart D. Walling.
"Ditch and Irrigation Law," . . . . .	Lafe Pence.
"      "      "      "      " . . . . .	Platt Rogers.
"      "      "      "      " . . . . .	Lewis C. Rockwell.
"Wills," . . . . .	Oliver B. Liddell.
"Hermeneutics of Wills," . . . . .	Lucius P. Marsh.
"Contracts," . . . . .	Chas. J. Hughes, Jr.
"Bills and Notes," . . . . .	John Hipp.
"Bailments," . . . . .	R. D. Thompson.
"Attachments," . . . . .	Joseph N. Baxter.
"Insurance," . . . . .	S. G. Williams.
"The Law of Carriers," . . . . .	Henry T. Rogers.





## ILIFF SCHOOL OF THEOLOGY.

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This school, projected and endowed by Mrs. Elizabeth Iliff-Warren, and provided with a building by Mr. William S. Iliff, A. B., will be opened in September, 1892, at University Park. A full corps of professors will be chosen by that time, and the building will be ready for occupancy. It is designed to make this one of the great theological schools of the church. Its founders and friends will spare no pains to make it worthy of the full confidence of the church. No School of Theology in Methodism has begun with better prospects or on a firmer basis.

The course of study will be three years in length and will embrace the usual departments of systematic, historical, exegetical, practical and comparative theology. There will be a special course in the English Bible, Bishop Warren already having begun the endowment of that chair. Further announcements will be made from time to time. For information address

CHANCELLOR WILLIAM F. McDOWELL,  
*University Park, Colorado.*



# SCHOOL OF MANUAL TRAINING.

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WILLIAM F. McDOWELL, A.M., S.T.B., PH.D., CHANCELLOR.

FREDERICK W. HART, PRINCIPAL,

Instructor in Machine Work and Mechanical Drawing.

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Instructor in Joinery, Turning, Forging, Pattern-Making and Drawing.

(Instruction in Languages, Sciences, Mathematics, etc., is given by the Faculty of the College of Liberal Arts.)

Experience in the East has proven that manual training is a very useful adjunct to the ordinary high-school course. Its educational value is equal to many of the purely mental studies. In the drawing-room or shop, the student is forced to think and act for himself. This cultivates independence of thought. Manual training tends to develop the student symmetrically. The Manual Training School graduates are taught to use both head and hands. Many men mistake their calling merely because they do not know which vocation to select, and so take hold of the first thing which comes to hand, regardless in a great measure of personal fitness or ability. In the manual training course the student receives elementary instruction in a variety of trades, and is thus enabled to discover which one he has a fitness or taste for. He learns to appreciate a piece of handiwork well done, and the intelligence and skill required to do it, and thus is cultivated a higher appreciation of skilled labor and of the laborer. The mistaken idea, far too prevalent, that manual labor is mere exercise of brawn without brain, is overcome. Thus many intelligent men will be induced to take up some mechanical pursuit, where there is plenty of room for good men, in preference to entering upon any of the overcrowded and less-

paid professions or clerkships now regarded as more genteel.

In the Manual Training School there is no attempt made at teaching a trade, for time is too limited, but the fundamental principles are taught of several trades. In the manufactory, the apprentice is kept on a single process for an indefinite time after he can perform it well, because it pays the employer; but in the Manual Training School the student is given another task as soon as he can perform the first one reasonably well. Thus the student acquires a greater skill in much less time than the apprentice.

No articles are manufactured for sale. It is "the cultured mind, the skillful hand," which we put upon the market.

#### DETAILS OF SHOP INSTRUCTION.

The studies are not optional, but are to be taken by the students in accordance with the course as shown below. The shop instruction is given similarly to laboratory lectures. The instructor at the bench, machine or anvil, executes in the presence of the whole class the day's lesson, giving all needed information, and at times using the blackboard. The students make notes and sketches (working drawings), and questions are asked and answered that all obscurities may be removed. The class then proceeds to the execution of the task, leaving the instructor to give additional help to those who need it. At a special time the lesson ceases. When the work is finished it is brought in, commented on and marked.

#### COURSE OF COMBINED STUDY AND TRAINING.

##### FIRST YEAR.

Drawing—Free-hand and Mechanical, and Lettering.

Shop work—Carpentry, Joining, Jig-sawing, Carving, Proper Care and Use of Tools.

1. { Algebra.  
History.

2. { Algebra.  
History.

3. { Algebra.  
Botany.

Latin may be taken in place of History and Botany.

## SECOND YEAR.

Drawing—Projection, Geometrical, Water Coloring in Flat Washes, Intersection and Development of Surfaces.

Shop-work—Wood-turning, Moulding, Pattern-making.

- |      |  |      |  |      |  |
|------|--|------|--|------|--|
| 1. { | Plane Geometry.<br>Rhetoric.<br>English. (2) | 2. { | Plane Geometry.<br>Elementary Geology.<br>English. (3) | 3. { | Plane Trigo'm'y.<br>Civil Gov't.<br>English. (2) |
|------|--|------|--|------|--|

Latin (Cæsar and Virgil) may be taken in place of Rhetoric and English.

## THIRD YEAR.

Drawing—Projection of Shadows, Architectural.

Shop-work — Forging, Welding, Tool-making, Tempering, Brazing.

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|------|---|------|--|------|--|
| 1. { | Physics. (3)<br>English History.<br>German Grammar. | 2. { | Physics. (3)<br>Higher Algebra.<br>German Grammar. | 3. { | Physics. (3)<br>Amer. Literature.<br>German Grammar. |
|------|---|------|--|------|--|

Latin (Vergil and Cicero) may be taken in First and Third Terms in place of English History and American Literature.

## FOURTH YEAR.

Drawing—Machine Details, Water Coloring, Drawing of Project.

Machine Shop-work—Drilling, Planing, Turning, Chipping, Filing, Scraping, Study of Machine, Care of Steam Engine and Boiler, Construction of Project.

- |      |   |      |   |      |  |
|------|---|------|---|------|--|
| 1. { | Surveying and Solid<br>Geometry.<br>Chemistry.<br>French Grammar. | 2. { | Mathematical<br>Review.<br>Chemistry, Organic.<br>French Grammar. | 3. { | Higher Equa-<br>tions.<br>Zoology.<br>French Gram. |
|------|---|------|---|------|--|

German may be taken in place of French.

The shops have all been newly arranged and are equipped with the latest improved tools and appliances. The wood-working shop has benches and conveniences for 128 students. The forging shop is equipped with the Buffalo forges and Sturtevant exhaust fan and forced draught. The machine shop has received some of the Putnam Machine Co.'s most improved machinery. One of C. B. Rogers' scroll-saws has been placed in the wood-working shop for use by the carpentry and pattern-making classes.

## GENERAL INFORMATION.

The school year is divided into three terms of sixteen, thirteen and eleven weeks respectively.



Regular annual reports are made to parents of the standing of the students.

#### TUITION.

Manual Training, . . . . .	\$40 per year.
Combined Course, . . . . .	80 per year.
Manual Training and College or College Preparatory, . . . . .	80 per year.

All bills are payable by the term in advance.

For further information regarding the school, apply  
to

FRED W. HART, PRINCIPAL,

At Haish Manual Training School, corner Fourteenth  
and Arapahoe Streets.

## BUSINESS COLLEGE.

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WILLIAM F. McDOWELL, A.M., S.T.B., PH.D., CHANCELLOR.

ROBERT J. WALLACE,

Dean of the Business College and Principal of the Business Department.

MAUDE E. WALLACE,

Assistant in Business Department.

JENNIE KLINGERMAN,

Assistant in Business Department.

CLINTON H. DONALDSON,

Assistant in Business Department.

DR. F. M. SHEPARD,

Teacher of Penmanship.

JAY M. LIND, M. A.,

Principal Stenographic Department.

L. R. WRAY,

Mrs. S. E. CRISP,

Assistants in Stenographic Department.

JOHN HIPP, A. B.,

Lecturer on Commercial Law.

This College is not merely a branch of the Academic Department, but is a College in the fullest sense, conducted by a full staff of teachers of its own, all of whom have had considerable practical experience in business.

The rooms for book-keeping, arithmetic, penmanship, shorthand, typewriting, and recitation rooms are large, airy and well lighted, and furnished with modern appliances and furniture.

There are regular hours for attendance, and regular class recitations, as well as individual instruction given.

This Department has educated a large number of bright and efficient accountants who are either occupying lucrative positions with good houses, or are engaged in mercantile business on their own account. The attendance and general satisfaction manifested by the students give good promise for a large growth. The system in this department is equal to that of any in the land, either east or west, and is intended to be the most efficient possible for preparing young ladies and gentlemen for the active duties of a business life.

The studies pursued are: Short-hand, Type-writing, Business Arithmetic, Spelling, Business Correspondence, Commercial Law, Penmanship, Business Forms, Finance, Theoretical Book-keeping, Actual Business and Practical Book-keeping, with lectures on how to conduct business successfully; how to make collections; manner of opening and closing a set of books for others; of shipping; of making remittances, and manner of dealing with banks.

The Principal is a practical business man and accountant, who has had years of experience in business and business colleges.

Parties who have no reputation to be affected, advertise to make students proficient book-keepers in thirty days; but they promise impossibilities. The small additional expense of a few months' tuition may prevent costly and far-reaching mistakes.

It is evident that to keep books accurately in the hurry and bustle of business, and to make out papers that hold parties responsible for thousands of dollars, require a thorough acquaintance with books and with the laws that govern business paper. It is also evident that this cannot be accomplished in a few weeks. We will take students for any length of time they wish to attend, and give them all the instruction they could get anywhere in the time; but we will not graduate any who are not thoroughly equipped, not only for keeping books, but to do business intelligently and safely. The reputation of our institution demands this, and it is due to those who wish to be thorough that we should give diplomas to none others.

The length of time for a thorough course depends upon the previous advantages the student has had and

his natural ability; the time usually taken, however, is from four to six months.

Students can enter at any time with equal advantages.

### BOOK-KEEPING AND BUSINESS.

A large, well-lighted, well-ventilated and well-heated hall and rooms are assigned to the students in Business and Book-keeping, containing bank, emporium and freight office, with other necessary furniture. The student first enters the JUNIOR DEPARTMENT, being here instructed in the rudiments of book-keeping, from which he passes to the SENIOR DEPARTMENT, where the more difficult and practical part of book-keeping is taught, together with business papers, such as notes, drafts, bank drafts for remittances, checks, receipts, bills of sale, mortgages, deeds, bonds, contracts, etc., etc. While in the Senior Department students buy and sell to and from each other; deposit in bank; give and receive cash and checks; make out statements of accounts, and collect from each other; endorse checks, making entries for such transactions; close the ledger, etc., all under the immediate supervision of the teachers. When their work is satisfactorily done, they are passed to the ACTUAL BUSINESS DEPARTMENT. Here they are furnished with capital for going into business, in which they keep their own accounts, using, with other auxiliary books, check-book, order-book, draft-book, bank deposit book, bill-book, receiving-book, etc.; ship through freight office, receive goods through same; pay freight on expense bills; make drafts on customers, and collect same through bank; have notes collected by bank; receive warranty deeds for real estate; give quit-claim deeds; receive lease on warehouse rented; have same transferred to other parties; make written contracts; write and receive letters and telegrams; buy out other parties in business; sell out business; burn out; and in each business in which they engage, close books and effect settlement with all parties. In these transactions the student uses the same blanks for papers that are used in real business, and books somewhat similar to those used by business men; have bank bills somewhat similar to those in general use; and representation of all property hazarded.

### EXAMINATIONS.

Every set is examined, percentage given for same, and no student is permitted to pass to another set until his work is entitled to 85 per cent. Examinations are held twice a week, both oral and written, and any student can enter the one following the examination he has passed as soon as he is ready for it; so that apt scholars are not retarded by dull ones, but can pass through as rapidly as they are able. The examinations embrace Accounts, Statements, Closing Ledger, Journalizing, Books, Single Shipments, Joint Shipments, Arithmetic, Commercial Law, Penmanship, Book-keeping and Business Correspondence.

### PENMANSHIP.

We teach the Spencerian System as used in business, and waste none of the student's time in pernicious flourishing. We have copy books ruled specially for the work, and the daily copies are written on the blackboard and analyzed.

### BUSINESS CORRESPONDENCE.

It is of primary importance that the student should receive a thorough drill in business correspondence, for two reasons: First, it teaches more about business matters and the manner of doing business well and safely—as a large number of business letters are contracts—than can be taught in any other way; second, the most lucrative positions are open to good business correspondents.

Lectures are delivered weekly. A subject for a business letter is given and the manner of treating it is discussed, and then left to the student to write upon. These letters are opened and read to the school, without names, for criticism by both teacher and scholars, after which a model letter on the same subject is placed on the blackboard, thus affording the students a valuable list of model letters to study and for future aid.

### LECTURES.

Two, and sometimes three, lectures are delivered every week, and students are expected to take copious

notes, that they may prepare themselves for examination on the subjects under discussion.

A large number of our students in this department find situations before graduating, and so leave as soon as they believe themselves competent to fill the positions they have in view; others, being limited for time, attend two, three or four months, as their time will permit, and go back to the positions they previously occupied. Several instances have come under our observation where the latter have, soon after returning, been advanced for their acquired knowledge.

This year's attendance has exceeded that of any previous year. The commodious rooms occupied at the beginning of the year were found to be too limited, and we were obliged to secure another room for our "speed" class in Shorthand. We are now using a text-book, compiled by the Principal, which has already proved very advantageous in advancing students in the knowledge of both business methods and in book-keeping.

#### STENOGRAPHIC DEPARTMENT.

This department has improved wonderfully under the management of Professor Jay M. Lind, M.A., having increased greatly in numbers and efficiency. Some of the best business firms and professional men have graduates from this department in their employ, and we find that the demand for stenographers is outgrowing the numbers in attendance, so that we have had to go outside of our class to answer all the calls upon us.

#### ADDRESSES.

Addresses were delivered before the students and their friends this year by John Hipp, Esq., Hon. Jos. C. Shattuck, Dr. W. F. McDowell, Rev. A. A. Cameron, W. T. Jordon, Esq., R. T. Cassell, Esq., Rev. Dr. Tupper and others. Arrangements are being made with leading men in the city and state for short addresses during the coming year.

For further particulars address

ROBERT J. WALLACE,

*Principal.*





# CATALOGUE OF ATTENDANCE.

## POSTGRADUATE.

Hicks, Arthur W. T.,	Denver
Lewis, Wilhelmina McCord,	Denver
Peck, Arthur C.,	Denver

## COLLEGIATE.

### SENIORS.

Benedict, Everett Flower,	Denver
Hoyt, Kepler,	Laramie, Wyo.
Johnson, James Everett	Georgetown
Law, Marion,	Sterling, Ill.
Pabor, Edgar Allan,	Denver
Post, John Joseph,	Georgetown

### JUNIORS.

Edwards, Arthur Marvin,	Denver
Waterbury, Lottie Lucelia,	University Park

### SOPHOMORES.

Bridwell, Charles William,	Millersburg, Ky.
Edwards, John Stanley,	Denver
Iliff, Edna,	University Park
McCoard, Charles,	Provo, Utah
Thomas, Julia Ethel,	Denver

### FRESHMEN.

Brown, Elizabeth Irene,	Denver
Hanchett, Frank George Burnham,	Denver
Krueger, Fred Tevis,	Denver
Loescher, Martha Augusta,	Denver

Preuitt, William Arthur, . . . . .	Denver
Rhoades, Helen Gray, . . . . .	Denver
Waters, William Lee, . . . . .	Denver

## IRREGULAR.

Bainton, Henry Watterson, . . . . .	New York
Cameron, Mary M., . . . . .	Denver
Evans, Anna, . . . . .	Denver
Foucar, Louise Henrietta, . . . . .	N. Woburn, Mass.
Hazard, William Jonathan, . . . . .	Denver
Hipp, Mrs. John, . . . . .	Denver
Hopkins, Robert Vaniman, . . . . .	Denver
Malin, Mary L., . . . . .	Denver
McConnell, Ernest, . . . . .	Table Rock
Silver, Henry Clay, . . . . .	Denver
Sprague, Ulrich Wellington, . . . . .	Denver

## COLLEGIATE PREPARATORY.

## THIRD YEAR.

Bancroft, George Jarvis, . . . . .	Denver
Carroll, Charles Geiger, . . . . .	Denver
DuPee, Frank, . . . . .	Denver
Evans, Albert Julius, . . . . .	University Park
Graham, Thomas Nelson, . . . . .	Denver
Lewis, Hattie Sisson, . . . . .	Denver
Mayham, Clara Elsie, . . . . .	Denver
McFarland, Nannette, . . . . .	Longmont
Richardson, Fred R., . . . . .	Argo
Thompson, Mary Andrews, . . . . .	Denver

## SECOND YEAR.

Abbott, Ada Flavia, . . . . .	Denver
Abeel, Bertha May, . . . . .	Empire
Arthur, William, . . . . .	Idaho Springs
Benedict, Florence Adelia, . . . . .	Georgetown
Blamey, Sarah Graham, . . . . .	Denver
Brown, Edward Newton, . . . . .	Denver
Church, Mary Miller, . . . . .	Semper, Colo.

Cook, Anna May, . . . . .	Denver
Cooper, Charlotte Eliza, . . . . .	Denver
Daniels, Mabel Luella, . . . . .	University Park
Davis, Frank Hiram, . . . . .	Tiffin, Ohio
Galbraith, John Alexander, . . . . .	St. Paul Park, Minn.
Graham, John William, . . . . .	Denver
Grantham, Willis Madison, . . . . .	Irving, Ill.
Hopkins, Louise Morgan, . . . . .	Denver
Hughes, Louisa A., . . . . .	Denver
Johnson, Rose Elizabeth, . . . . .	Denver
Kramer, Andrew L., . . . . .	Denver
Lindsay, Samuel Joseph, . . . . .	Denver
Lipe, Walter Edwin, . . . . .	Denver
Loomis, Effie, . . . . .	Fort Collins
Paul, Louis Philip, . . . . .	Denver
Pinkney, Louisa, . . . . .	Denver
Pinkney, Mary Dixon, . . . . .	Denver
Reed, Ruth Anna, . . . . .	Denver
Rhoades, Sara, . . . . .	Denver
Rice, Selina Alvira, . . . . .	Grand Junction
Richardson, Frank L., . . . . .	Argo
Sheets, Charles William, . . . . .	Harrisburg, Pa.
Sloan, Robert Henry, . . . . .	Denver
Sperry, Howell Bettis, . . . . .	Denver
Starkweather, Florence C., . . . . .	Denver
Thomas, Emma Eugene, . . . . .	Denver
Thornton, Jesse Baldwin, . . . . .	University Park
Van Hove, John Franciscus, . . . . .	Denver
Walker, Mabel Dean, . . . . .	Denver
Weber, Herman Rudolph, . . . . .	Denver
Wheeler, Mary Flo., . . . . .	Denver
Wight, Lucy Belle, . . . . .	Denver
Wood, Edgar Newton, . . . . .	Table Rock, Neb.

## FIRST YEAR.

Aldrach, William, . . . . .	Denver
Banks, Walter T., . . . . .	Denver
Barcus, Arthur, . . . . .	Denver
Beecher, George N., . . . . .	Denver
Beymer, Clifford, . . . . .	Denver
Brown, Fred Lithgow, . . . . .	Denver
Cameron, Belle R., . . . . .	Hastings, Neb.

Culver, Henrietta,	Denver
Donnell, Harry D.,	Poncha Springs
Evans, Grace G.,	Fort Collins
Fisher, Jay McKean,	Denver
Ford, William W.,	Pueblo
Hamilton, Harry S.,	Wichita, Kan.
Hansen, William E.,	Denver
Holcomb, Bruce,	Denver
Huett, Charles Wesley,	Brighton
Jones, Charles E.,	Denver
Jump, Sadie L.,	Centreville, Md.
Law, Fred,	Denver
Lawson, Floyd Augustus,	Trenton, Ont.
Lilley, Sarah Josepha,	Littleton
Mack, Charles,	Denver
Masten, A. Gertrude,	Lafayette, Ind.
Masten, Winifred,	Lafayette, Ind.
Matthews, Lee Corydon,	St. Francis, Kan.
McClelland, Nellie A.,	Alamosa
McCreery, Guy Winters,	Colorado Springs
McCullough, Kate Eola,	Steubenville, O.
Meyer, William Fred,	La Costilla, N. M.
Miller, Addie Brown,	University Park
Morgan, John S.,	San Francisco, Cal.
Newton, Arthur Wilbur,	Colorado Springs
Root, Richard Willis,	Denver
Schaefer, Peter Charles,	Denver
Shafer, Bert,	Watkins
Sinnock, Myrtal H.,	Raton, N. M.
Skerritt, Mamie,	Petersburg
Smith, Vergil R.,	Denver
Smith, William Rolla,	Denver
Stroeter, Luella Elizabeth,	University Park
Tedford, Oliver P.,	Denver
Thomas, Alonzo O.,	Denver
Wilson, Edwin A.,	Denver
Young, Howard Brown,	Denver

## IRREGULAR.

Alarid, Fred,	Santa Fe, N. M.
Atkins, Thomas L.,	New Orleans, La.
Babcock, John,	Denver

Campbell, Ernest Elisha, . . . . .	University Park
Colburn, Horace Dodge, . . . . .	Denver
Dano, Frank E., . . . . .	Denver
Evans, Gussie,* . . . . .	University Park
Everett, Gideon D., . . . . .	Denver
Gutzler, Mertie E., . . . . .	Denver
Haben, Irene, . . . . .	Denver
Herr, Ernest C., . . . . .	Denver
Ingersoll, Mary Edith Schuyler, . . . . .	Denver
Jones, John, . . . . .	Denver
Leavy, Anna L., . . . . .	Denver
Manly, Robert Woolf, . . . . .	Chilicothe, O.
McKechnie, J. H., . . . . .	Denver.
Morris, Ella, . . . . .	Idaho Springs
Niles, Robert Alexander, . . . . .	Denver
Pattison, Loulu E., . . . . .	Denver
Pattison, Mamie S.,* . . . . .	Denver
Pendleton, Effie, . . . . .	Denver
Plummer, Bessie, . . . . .	Idaho Springs
Prentice, Ida Whitcomb, . . . . .	Denver
Rice, Mary Villa, . . . . .	Denver
Rubidge, Alfred J., . . . . .	Denver
Scott, J. Wayne, . . . . .	Canon City
Snider, Noah Lincoln, . . . . .	Daniels, Md.
Sopris, Cora Mae, . . . . .	Trinidad
Spencer, Ben Davis, Jr. . . . .	Denver
Stuart, Lois Isadore, . . . . .	Denver
Swart, ———, . . . . .	Leadville
Warnecke, Carl Marie, . . . . .	Denver
Whitehead, James William, . . . . .	Colorado Springs
Winans, Grant I., . . . . .	Manhattan, Kan.
Wortmann, Hermann, . . . . .	Denver

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\* Deceased.

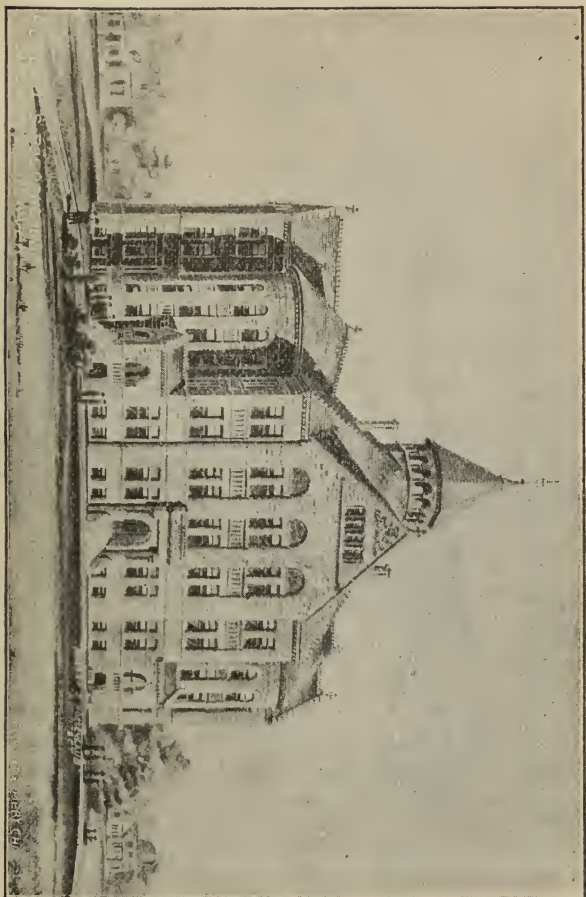
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## SUMMARY OF STUDENTS.

Postgraduate, . . . . .	3
College of Liberal Arts, . . . . .	30
College Preparatory, . . . . .	128
Manual Training School, . . . . .	39



Music, . . . . .	112
Art, . . . . .	59
Medical, . . . . .	55
Dental, . . . . .	17
Pharmacy, . . . . .	13
Business, . . . . .	392
Junior Preparatory, . . . . .	102
Law Lectures, . . . . .	35
Special, . . . . .	8
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	993
Deduct, counted more than once, . . . . .	145
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Total, . . . . .	848



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